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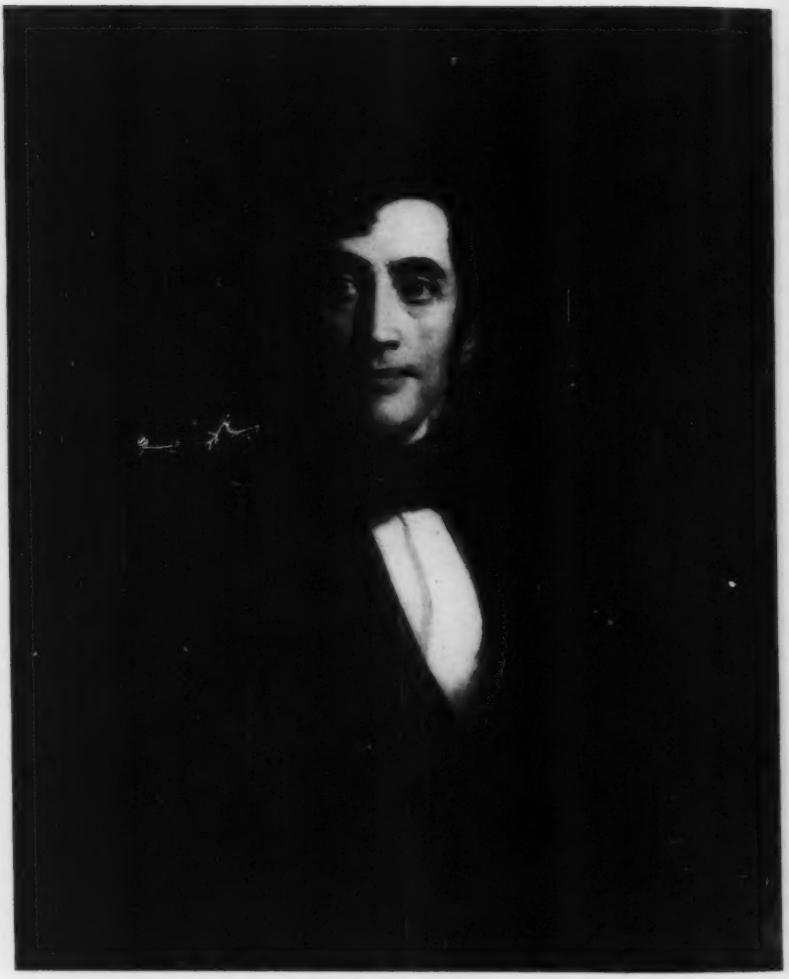

DR. JOHN DAVY

From the original painting in the possession of Mrs. M. E. Rolleston of London.

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JOHN DAVY

Physician, Scientist, Author, Brother of Sir Humphry *

RICHARD S. ROSS

The brother of a famous man is often relegated to obscurity unless he chooses to bask in reflected glory. This was the situation with John Davy, the physician brother of the eminent Sir Humphry Davy. Though a distinguished scientist in his own right, John Davy's life has largely been eclipsed by that of his well-known brother.

John Davy was born in Penzance in 1790, the second son of Robert Davy and Grace Millett. Robert Davy died at the early age of forty-eight in 1794, when John Davy was but four years of age. Humphry Davy was twelve years older than John, but the two were good friends throughout life. In his book, *Memoirs of the Life of Sir Humphry Davy, Bart.*, John Davy describes his brother as one "who had acted the part of a father to me." [1]

John Davy graduated in medicine from Edinburgh in 1814. At this time his brother had been knighted nearly two years and his reputation was well established. It has been said that the younger Davy considered a career in the natural sciences with his brother but decided against it. The reason for this decision as given in his obituary was: "The whole

* From the Department of Medicine, Johns Hopkins University and Hospital.—Paper read before The Johns Hopkins Medical History Club, April 16, 1952.

[1] John Davy, *Memoirs of the Life of Sir Humphry Davy, Bart.*, vol. II, p. 348.

truth is that John Davy, with the keenest admiration of Sir Humphry's greatness, was too conscious of his own inability to reach the level of that greatness, and was far too independent to shine by the borrowed light even of his own flesh and blood. And so he marked out his own path, made Medicine his social basis and standing-ground in the world, and won, unaided, his own reputation." [2]

While still a student, in 1811, his first essay was published in defense of his brother's views on the composition of oxymuriatic acid (hydrochloric acid). His inaugural dissertation, written on the occasion of his graduation, was on the blood. This interest in the blood continued throughout his life with studies of coagulation, temperature, and gaseous constituents.

The major portion of John Davy's life was spent in the Royal Army Medical Corps, in which service he was stationed in Ceylon, the Ionian Islands, the West Indies, and in England. He was always zealous and conscientious in the execution of his duties, and obviously intolerant of the negligence and incompetence so common in public service. Because of this commendable but politically unwise attitude he was not popular. He rose through the ranks of the Army Medical Department to become Inspector-General of Army Hospitals, and was considered for the highest office in his department, but according to one anonymous admirer, "he was injudiciously, if not ungratefully, displaced or passed over in favour of servile mediocrity or convenient inferiority." [3]

John Davy married in 1830 at the age of forty, and on his death in 1868 was survived by one son and one daughter. He became a Fellow of the Royal Society in 1834. He was described as "small and spare . . . with a fair complexion, his hair was dark and plentiful, though kept short, and he had bright hazel eyes." [4] His face was said by one who knew him to be very like that of his brother.

During his life and travels he contributed 152 papers to the literature. These were not limited to medical problems or geography of the foreign countries in which he was stationed, but included fundamental physiological and anatomical investigations which he carried on even though local situations undoubtedly rendered this difficult. He made the maximum use of simple available apparatus to clarify previously obscure physio-

[2] *The Medical Times and Gazette*, vol. I for 1868, p. 160.
[3] *The Medical Times and Gazette*, vol. II for 1871, p. 391.
[4] *The Medical Times and Gazette*, vol. II for 1871, p. 391.

logical and pathological problems. One of his great virtues was his humble willingness to admit his own ignorance. He summarizes his extensive, though comparatively fruitless, studies on malaria in the following manner: "A conviction of our ignorance is a good preparatory state of mind for the discovery of truth. This, it seems to me, is the principal progress hitherto made in the investigation of malaria." [5]

Davy was sceptical of much of the accepted knowledge of the day. He was vehement in his criticism of many recognized authorities with whom his experimental results led him to disagree. He took pains to disprove by experiment the claims made for many popular medicines and methods of treatment. This scepticism and critical point of view pertained to many contemporaries, but never to Sir Humphry Davy. Biographers of the latter have considered this fraternal loyalty blind in many respects.

Davy was a thorough investigator and his descriptions are long and detailed. The data are voluminous, often without any semblance of analysis. His experiments were largely designed about instruments and methods with which he was familiar, the most used tool by far being the thermometer. He studied the temperatures of various animals and races of men, applied the thermometer to hot springs and the sea, and used the wet and dry bulb thermometer in his weather observations.

A second measurement noted in almost all Davy investigations was that of specific gravity. He determined the specific gravity of rocks in Ceylon, of human and animal organs and blood, both arterial and venous, as well as the specific gravity of red blood cells by flotation in sulfate of soda.

Another instrument common in many of his experiments was the air evacuation pump which was applied to a large variety of animal tissues and fluids. Among other things, he demonstrated that oxygen could not be removed from arterial or venous blood by the evacuation pump.

A possible criticism of Davy as an investigator is this design of experiments around methods. This approach resulted in a large mass of data, often lacking in direction and unsuited for correlation.

John Davy's interests were wide. His contributions were in the fields of pathology, physics, comparative anatomy, geography, anthropology, and sociology. The 152 papers and books can be conveniently divided into four groups.

The purpose of the first group, his accounts of experiences in foreign

[5] John Davy, *Diseases of the Army*, p. 53.

countries, is stated in the preface to *Notes and Observations on the Ionian Islands and Malta.* Davy felt that travel was one of the great advantages of government service which, however, was frequently turned to the mere self-improvement of the individual. He goes on to say: " If medical officers considered it a duty which they owe to the public to communicate such information, as they may have had it in their power to collect, relative to the countries in which they have been stationed, how many doubtful points would have been cleared up,—how many errors corrected,—how much more perfect would the histories of those countries have been rendered." [6] This quotation embodies the motive for the books describing in detail, with maps and drawings, the geography, weather, inhabitants, and medical problems of Ceylon, Malta, the Ionian Islands, and the West Indies. His active and productive life as a medical officer might well serve as a prototype for modern physicians called into military service. Davy had little time for boredom.

He was apparently a firm believer in the colonial system, making suggestions for the development of cooperative agriculture in the West Indies; he was impressed by the capabilities of the colored race and made proposals for its improvement. He foresaw great industrial potential in the niter caves and salt lakes of Ceylon. Regarding the salt lakes, he says " were they scientifically managed, they might be made to yield, not only any quantity of salt, sufficient to supply all India, but almost any quantity of magnesia might be extracted from the residual brine." [7]

The second group of contributions, his basic physiological and anatomical studies, have been collected into three volumes. The first two volumes entitled *Dr. Davy's Researches, Physiological and Anatomical* were published in 1839, and a third volume, *Physiological Researches,* was added in 1863. These volumes include most of the important works, the majority of which were originally published separately.

His pathological observations, which constitute the third group, are collected in the book *On Some of the More Important Diseases of the Army with Contributions to Pathology.* This work, published in 1862, includes protocols on many of the 1060 autopsies recorded during his career. Some of the chapter headings are " On Fever," " On Dysentery " and " On Deaths from Alcoholic Intoxication." The clinical histories and autopsy findings are given in detail, with comment and conclusions

[6] John Davy, *Notes and Observations on the Ionian Islands and Malta,* p. 7.
[7] John Davy, *An Account of the Interior of Ceylon,* p. 37.

at the end of each chapter. The author was apparently a very "eager" pathologist. One rather incomplete protocol is explained in the following words: "Owing to aversion on the part of the widow to a post-mortem examination, the inspection was very partial and hurried. . . . It is to be regretted that in the hurried examination, and owing to interruption, the state of the arteria innominata, and the right subclavian and carotid arteries was not determined." [8]

Into the fourth group fall Davy's non-professional works which include the two volume *Memoirs of the Life of Sir Humphry Davy, Bart.* and his books on fishing, his favorite recreation.

Among the more interesting of the physiological experiments are those on the torpedo, a small ray capable of giving an electric shock. Sir Humphry Davy requested that his brother pursue this work in his last letter, dictated as he thought himself dying on February 25th, 1829. Humphry Davy outlined the experiment thus: "It was my wish to have exposed an unmagnetised needle to the continued shocks of a torpedo in a metallic spiral, making the metallic communication perfect with both electrical organs. There is in my little box, an apparatus which I hope you will use." [9] He concludes, "Pray do not neglect this subject, which I leave to you as another legacy. God bless you, my dear brother, your affectionate Friend, H. Davy." [10] John Davy, at that time serving in Malta as Physician to the Forces, hastened to his brother's bedside in Rome. To his surprise, his brother was still alive on March 16th, 1829, when he arrived, and Humphry Davy, though gravely ill, began immediately to speak of the unfinished problems he wished to pass on to his brother. He spoke of the torpedo and "begged that I would immediately take up the inquiry, and go next morning to the fish market and procure some torpedos, that, with the fish before us, he might point out what he considered most deserving of notice." [11] John Davy was with his brother throughout his last illness until his death on May 29th, 1829.

John Davy continued the investigations on the torpedo and reported the results to the Royal Society in March, 1832. He was able to magnetize needles by passing electric shocks from the fish through a surrounding spiral. A compass needle was deflected, heat was generated in a fine coil and electrochemical activity was also demonstrated. In the electrochemical

[8] John Davy, *Researches, Physiological and Anatomical*, vol. I, p. 433.
[9] *Ibid.* p. 2.
[10] *Ibid.* p. 2.
[11] John Davy, *Memoirs of the Life of Sir Humphry Davy, Bart.*, vol. II, p. 349.

experiments he determined that the polarity of the electric organ was always the same. The anatomy of the electric organ was then studied and likened to a series of Leyden jars.

A second interesting contribution is that concerned with the urinary organs of amphibia and reptiles. This work was performed in Ceylon about 1816. Davy was apparently not aware of the prior discovery of pure lithic acid (uric acid) in the excrement of reptiles and birds, and presents this as an original finding. He noted that the urine of frogs contained urea as did that of the higher mammals. He emphasized the importance of this finding as follows: "That the nature of the secretion of the kidneys of animals depends more on the intimate and invisible structure of these organs, then on the kind of food the animals consume. . . . I will mention one (instance) only; it is that of parrots and snakes; their urine, as I have found, being much the same, consisting chiefly of lithic acid, though their diet is altogether different, the birds feeding entirely on vegetable matter,—the reptiles entirely on animal matter." [12] His conclusions were that "the urinary organs of the turtle and tortoise, on the one hand, seem to be a connecting link between those of the reptiles and the mammalia." [13] This is, of course, in keeping with modern knowledge.

Animal temperature was undoubtedly his favorite subject, and examination of his observations gives great insight into the nature of the man. The method was used to its limit. He applied the thermometer to an almost unbelievable variety of animals, both wild and tame, in all parts of the world. Human temperature was studied under different climatic conditions, after exercise and after death. Not only was the whole body temperature recorded, but also that of various organs in life and after death was determined by suitable experiments. All experiments are described in detail, observations recorded precisely, and repeated when possible. The ambient temperature and other variables of possible importance were quantitated if not controlled. With this mass of data as a background, Davy speculates intelligently on the problems of acclimatization to heat and the source of animal heat. In his obituary, published in 1868, he is given credit for familiarizing the medical profession with the thermometer as a useful clinical tool, and establishing baseline measurements against which clinical variation could be compared.

[12] John Davy, *Researches, Physiological and Anatomical*, vol. I, p. 104.
[13] *Ibid.* p. 104.

The experiments on the temperature of animals ranging from bats to elephants are too numerous and diverse to be mentioned in any detail. However, the observations on the elephant are typical and worthy of quotation: "At Colombo, on the 22nd of September, air eighty degrees, the temperature of a full-grown healthy elephant was 99.5. It was ascertained by placing a thermometer in a deep abcess in the back. It was necessary to lay open the abcess to effect a cure. . . . The animal was kneeling down for the convenience of the operator—not tied—his keeper at his head. He did not flinch, but rather inclined towards the surgeon, uttering a low suppressed groan. He seemed conscious, that what was doing was intended for his good; no human being, similarly situated, could have behaved better. I think it right thus to record this instance, which I witnessed myself, of this animal's (may I call it) reflecting power and conduct, which it is difficult to consider otherwise than rational." [14]

Davy occasionally directed his attentions to subjects of medical military importance. In Ceylon he conducted numerous experiments with snakes. He studied, by animal experimentation, the poisons of twenty different kinds of snake and proved that, contrary to common belief, only four of the twenty were poisonous. In discussing this discrepancy between fact and popular belief he says: "Where the fears are much concerned, the reason is generally weak." [15] He observed that certain snake venoms were distinguished for their effect on the nervous system. As to the therapy of snake bite he comments, "too often, medicines have got into repute as antidotes, from being given in slight cases, that would have recovered without medical treatment." [16] Davy studied snake charmers to the point of trying their art, and says: "These men do possess charm, though not a supernatural one, viz. that of confidence and courage." [17] In comparing the reactions of Europeans and natives to snakes he states: "The latter is terrified by his imagination—the former is fearless from the knowledge of his security." [18]

The approach of the experimental pathologist is evident in his studies on pneumothorax. This work began in 1823 with the autopsy performed on Abraham Iredill, a private soldier of the 7th Regiment of Foot, who died of phthisis pulmonalis. The post-mortem examination was done with

[14] *Ibid.* p. 184.
[15] John Davy, *An Account of the Interior of Ceylon*, p. 79.
[16] *Ibid.* p. 100.
[17] *Ibid.* p. 84.
[18] *Ibid.* p. 80.

the body immersed in a tub of water. In this way, 225 cubic inches of gas were collected from the right pleural cavity. After this collection, the lung was examined and a communication found between the lung and the chest cavity. " A kind of valvular structure was discovered, allowing of air being pumped into the pleura in the act of inspiration; but not of its escape in expiration, to which no doubt was owing the great accumulation of air." [19] The air was analyzed and found to extinguish a flame and to be non-flammable. " Examined by means of lime water and phosphorus, (which was sublimed in it without effect) 100 parts of it, were found to consist of 8 carbonic acid gas, and 92 azotic gas." [20] Davy concluded that this was atmospheric air from which the oxygen had been absorbed, and was not a special gas secreted by the pleura. He then proved his hypothesis by animal experimentation. Various mixtures of gases were introduced into the pleural cavities of dogs and allowed to remain for various periods of time before withdrawal and analysis. Oxygen was absorbed rapidly, carbon dioxide and hydrogen less rapidly, and nitrogen was not absorbed at all. Four months later a clinical experiment was performed on a patient with a tension pneumothorax. The man's chest was tapped with a small trocar attached to a small bladder, and air was allowed to escape. This was done many times, affording the patient considerable symptomatic relief. On each occasion the gas was analyzed and found to consist of " azote, and a little carbonic acid." [21] Emerson, in his review of pneumothorax,[22] gives John Davy credit for the first analysis of the gas from spontaneous pneumothorax.

Another similar study followed the autopsy performed on Thomas McGarey, aged forty-two, who was, " according to a comrad, of ' lonely habit,' fond of walking by himself; but well conducted and sober, and previously in good health,—was found dead early in the morning of April 14th, 1823, in a chalk-pit in the neighborhood of Chatham, at the foot of a precipice, between 50 and 60 feet deep,—the greater part of it, perpendicular." [23] There was no mark of external violence on the body, but the left auricle and aorta were ruptured. Subsequently Davy conducted a series of experiments in which the heart and great vessels of animals and humans were subjected to internal hydrostatic pressure applied with

[19] John Davy, *Researches, Physiological and Anatomical*, vol. I, p. 252.
[20] *Ibid.* p. 254.
[21] *Ibid.* p. 269.
[22] *The Johns Hopkins Hospital Reports*, vol. XI, p. 202.
[23] John Davy, *Researches, Physiological and Anatomical*, vol. I, p. 437.

a syringe. The pressure tolerated was found to be large and there was no point significantly more likely to rupture than any other.

The most delightful reading can be found in the little book *The Angler and his Friend*, published in 1855 when Davy was 65 years old. The form is that of a dialogue between Piscator, apparently Davy himself, and Amicus, a friend who is being instructed in the theory and practice of angling. The dialogue form is one of the features suggesting that Izaak Walton's *The Compleat Angler* served as a model for this work. The advantages of angling as a sport for the " contemplative man " are expounded: " The first recommendation of angling is, I think, the exercise it affords, in which in wielding the rod and casting the flies, and in going from pool to pool, almost every muscle of the body is called into action, and with such variety, and always with such moderation as to occasion no severe strain on any limb, or any exhausting effect on any set of muscles. . . . The season, too, of angling, and the weather best fitted for it, are equally favourable for health and enjoyment." [24]

The descriptions of fishing trips in England and Ireland are numerous and vivid. The approach to angling is not that of the usual sportsman, for the angler states " that to make angling most interesting it should not be dissociated from science." [25] In answer to the friend's concern about the cruelty of angling, he describes the senses and cannibalistic habits of the fish. He explains the use of the landing net by comparing the weight of a trout in air and in water. Following this reference to the specific gravity of fish comes a discussion of the air bladder and its function. In connection with the flavor of salmon, the angler reports an experiment in which a portion of salmon was immersed in boiling alcohol. As a result, " the spirit becomes coloured, and acquires the odour of the fish; whilst the portion of fish becomes colourless, odourless and insipid." [26]

Davy was a firm advocate of fish as food. In this regard he makes the following statement: " And, if we give our attention to classes of people —classed as to quality of food they principally subsist on,—we find that the ichthyophagous class are especially strong, healthy and prolific. In no class than that of fishers do we see larger families, handsomer women, or more robust and active men." [27] This beneficial effect was attributed to iodine. As corroborative evidence he mentions " the well-ascertained

[24] John Davy, *The Angler and his Friend*, p. 10.
[25] *Ibid.* p. 217.
[26] *Ibid.* p. 175.
[27] *Ibid.* p. 114.

efficacy of cod-liver oil—an oil containing iodine—in arresting the progress of consumption." [28]

The angler is not all science. One of the descriptions in the closing chapter is worthy of quotation: "These were some of the features of a scene, which, need I say, heightened as it was by various accompaniments, —the watery rocks, the tinkling rills, the sounding cataracts, was one of rare beauty and wild grandeur,—a fine example of living nature, such as is only to be seen in a mountain region, and in the angler's haunts." [29]

The character and contributions of John Davy are beautifully evaluated in his obituary, written by one who must have known him personally as well as professionally: "The brother of the great Sir Humphry, inheriting with him a love beyond prejudice for simple truth in nature, trusting firmly in nature, learning directly of her, having reserved faith in all observation, and no faith in beliefs cultured without experiment, John Davy was of a verity a reliable man; and if he did not possess the insight of Sir Humphry, the grasp, the prescience, and all else that makes up what is called genius, he held as his own every one of those other qualities without which even genius were, and is, a stumbling-block—industry, perseverence, patience, zeal, devotion. Nature opened her secret life to him because, if not a brilliant suitor like his brother, he was equally honourable to her and equally sincere." [30]

John Davy, physician, scientist and author,—brother of Sir Humphry, is an apt title only if emphasis be placed on John Davy's achievements and not solely on his relation to Sir Humphry. His full, active, and productive life stands alone as testimony to his abilities.

The author wishes to acknowledge the kindness of Mrs. M. E. Rolleston, widow of Dr. J. D. Rolleston (1873-1946), grandson of Dr. John Davy, who allowed the portrait of Dr. Davy which is in her possession to be reproduced here. The author also wishes to express his gratitude to Mr. W. J. Bishop, Librarian of the Wellcome Historical Medical Library, London, who arranged for the reproduction of the portrait.

[28] *Ibid.* p. 115.
[29] *Ibid.* p. 305.
[30] *The Medical Times and Gazette*, vol. I for 1868, p. 160.

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LOCATION AND EXCAVATION OF THE FIRST DANISH LEPER GRAVEYARD FROM THE MIDDLE AGES— ST. JØRGEN'S FARM, NÆSTVED

VILHELM MØLLER-CHRISTENSEN

In 1944 I found in the friars' court of Æbelholt cloister (Sealand) the skeleton of a woman, 25-30 years old, with some very peculiar pathological changes. The character of the changes has no parallel among the specimens of the Æbelholt collection, the collection from Øm (4), or the pathologic anatomical collection of the University of Copenhagen. Nor have any such phenomena been described in textbooks of pathologic anatomy and roentgenology (9). Without possessing any particular knowledge of leprosy, I made the tentative diagnosis of leprosy, because I assumed that a disease that had damaged the skeletal system in such a dreadful way might possibly be leprosy, and because the usual diagnoses made in the case of the Æbelholt skeletons could be excluded here.

In collaboration with Professor Poul Møller and with the assistance of Norwegian and Swedish leprologists and pathologists I now wrote a paper (6), although it proved quite impossible to confirm or refute the diagnosis of leprosy. True, the case showed distinct deviations from leprosy of our days (2), but the idea could not be refuted that leprosy had been changing in character in the course of the 700 years that had passed since the Æbelholt patient died. And as nothing definite was known about leprous bone lesions in the middle ages, we could not get any farther by differential diagnostic considerations.

In view of the fact that leprosy is one of the oldest diseases of mankind, the victims of which all over the world now number five to seven millions, one would think that some university or other would possess a special collection of leprous bones from ancient or prehistoric times. This is not the case, however. Professor Gotfredsen (3) says that the hitherto oldest finding of a leper dates from the sixth century A. D. and is represented by the mummy of a Copt whose pathological lesions have been interpreted as indicating "lepra mutilans." Regarding more recent findings of leprous skeletons, mention is to be made of one skeleton from the Øm cloister (7) and of the excavation carried out by the Swedish archeologist Mats Petersson (10) in 1946 at the site of St. Jørgen's Church in Åhus

in Scania, Sweden, where from 27 untouched graves a few bones with typical leprous lesions were removed. These bones were examined by Lindegard and Löfgren (5), two Swedish anatomists and anthropologists, who without going into details stated: "An den untersuchten Skelettknochen haben wir keine Spuren finden können, die auf Aussatzbefall schliessen lassen"; and then the authors refer to the finding of a few bones from fingers and toes presenting leprous deformities and also a couple of skulls with changes of "zweifellos lepröser Natur." In addition, the universities of Bergen and Oslo (Norway) each possess a small collection of hands and feet from patients of our time, showing leprous deformities.

Under these circumstances it was realized, in 1946, how difficult, if not impossible, it was to make any definite diagnostic statement with regard to pathological changes in a skeleton from the middle ages and how badly a reliable contemporary basis for comparison was wanted. I therefore took up the task of trying to find such skeletal material (7).

As medieval Denmark had at least 31 "St. Jørgen's Hospitals" with their burial grounds, it might not seem very difficult to trace and locate a Danish St. Jørgen's graveyard and to obtain some skeletons for examination. After the middle ages, however, many St. Jørgen's cemeteries continued to be used as burial grounds, and thus became unsuitable for archeologic skeletal research; or the cemeteries were used for building sites. Thus it was possible to exclude a number of towns which in the middle ages had possessed a St. Jørgen's Hospital. Then the town of Næstved (in Sealand) came to my mind, where I served as amanuensis for six months in 1929, having just acquired my jus practicandi. One day, while driving out of town to visit a patient, we took a route running along Susaen (the waterway of Næstved), and here my chief pointed out a stretch of meadow on the left bank of the stream and told me that this was the site of the Næstved "St. Jørgen's Hospital."

When, in 1948, I assumed the task of locating and investigating a lepers' graveyard, the town of Næstved naturally occurred to me and I sincerely hoped that the 19 years that had passed since my service as amanuensis there had left the site of the St. Jørgen's Hospital intact.

One Sunday in August, I drove to Næstved and found the place which was now almost unrecognizable because a large factory had been erected in the meantime. By questioning the neighbors I soon learned that no skeletons had been found when the ground for the new buildings was excavated. Thus it seemed probable that tradition had pointed out a

wrong site to me in 1929. I therefore at once paid a visit to all the families living in the vicinity, asking in every case whether the occupants had ever heard about human bones being found in the gardens. In most of the places the good people took my question for a silly idea engendered by the heat and accompanied me to the door with a pitying smile. Finally, however, in one place I was told that a farmer living about 200 meters from the factory had found some human skulls in his yard 15 years ago when he was laying a deeper sewer.

FIG. 1

View of the farm, Næstved, which was built on top of the medieval leper graveyard. Until the present excavations commenced in 1948, the residents thought that the farm had been built on a warriors' cemetery from the middle ages.

I immediately called on the farmer, who received me very kindly and confirmed what I had heard about the finding of human skulls, supplementing this with the information that a great number of human bones had been exposed too since the dwelling house of the farm was built on an old warriors' cemetery of the middle ages.

The farmer became so interested in my assumption that there actually was the possibility of a lepers' graveyard that he gave me permission to put my idea to the test at once. I did so, and within a few hours I found

an untouched grave and bones that showed signs of leprosy. Now this point was settled, but it still remained to obtain the farmer's permission to turn his farmyard practically upside down in order to have the skeletons removed carefully.

As the farmer intended to dig a rather large hole in his farmyard in the summer of 1950 in order to install a septic tank, we found it expedient that I should first excavate this area in my search for skeletons, so that these could be removed before the navvies started making the tank.

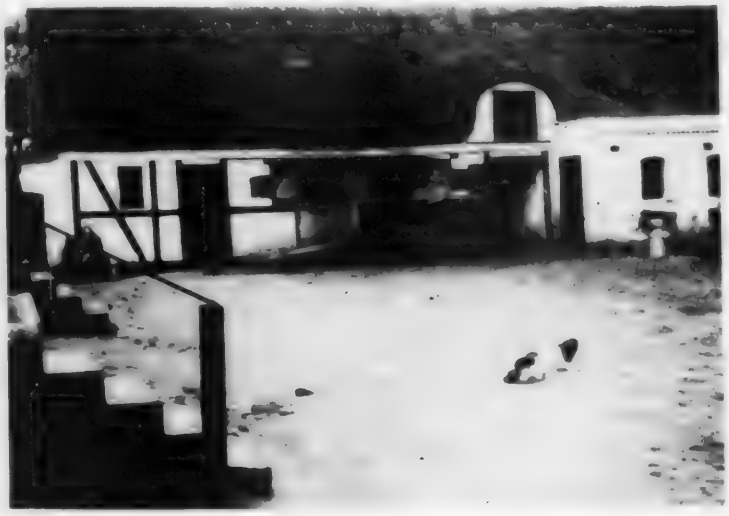

FIG. 2

The farmyard where the excavations took place, and where about 200 skeletons were found besides the foundations of the fairly large church of the medieval leprosary.

This farmyard soon proved to give an abundant yield—not only from a paleopathological point of view, but also from an architectural one. Apart from obtaining a score of well-preserved skeletons, I succeeded in uncovering the heavy granite foundation of a monumental brick building from the middle ages. These remains of buildings of which nobody knew might indicate a church. The Næstved museum became interested in the matter too, and wished to take part in the work. At the following excavation—during two weeks of my summer vacation in 1951—we therefore divided the work so that I gave all my time and work to the

skeletal excavation, while the archeological expert, F. Michelsen, M. A., took care of the fundaments, their excavation, photography, and measuring. My first assumption that these fundaments originated from some church proved to be correct, and the excavation in the summer of 1951 disclosed the remains of a late Gothic church building measuring 22 x 8 m. with a tower to the west.

Driving from the harbor of Næstved, about 1 km. along the idyllic canal, one arrives at Aaderup, a suburb of Næstved. Here the ground rises a little, and the farm is situated here, bearing rightly the name of St. Jørgen's farm at Næstved, from which there is a beautiful view of the Suså canal leading to the town of Næstved.

Fig. 3

The only entrance to the farmyard. Here the choir of the old church was excavated.

Because of its particular architecture, the farm has only one large entrance—namely, the gate seen in Fig. 3, under the gravel floor of which we found the foundations of the choir of St. Jørgen's church. This gate leads to the farmyard shown in Fig. 2.

The farmyard is rectangular, measuring 19 x 26 m. The picture is taken from the gate and shows a part of the northwestern wing of the farm, namely, the cow-stable. The site of the old well, placed in the midst

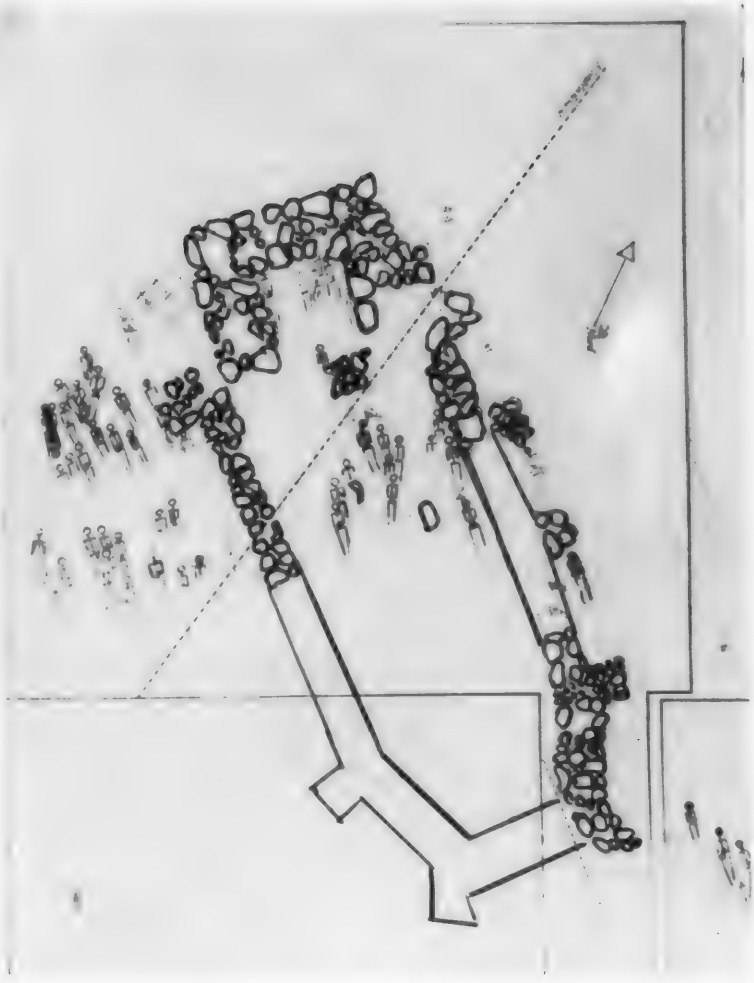

FIG. 4

Tentative ground plan of the St. Jørgen's church in Næstved, including the location of the skeletons excavated so far. The portal gate in Fig. 3 is seen here and to the right.

of the leper graves, is indicated on the picture by two milk cans and a trough at the extreme right. To the left two cement stairs of the farmhouse can be seen, the one in front leading to the kitchen, the other to the main entrance of the dwelling. Opposite the latter, the septic tank is planned, and it was here that the first excavation took place. The dog seen in the picture is lying on the spot corresponding to the middle of the church.

So far the excavations have yielded about 50 intact graves, the skeletons of which are indicated on the ground plan (Fig. 4). In addition, skeletal parts, mostly skulls and calvaria, of 100 other bodies were obtained, so that the total skeletal material today comprises over 150 individuals. The men appear to be in the majority, accounting for $^3/_5$ of the material, but there are also several children, newborns too. There is even one woman who was buried in the sixth month of her pregnancy. The average age of the individual is about 30 years. At a rough estimate there should be about one thousand skeletons in the entire graveyard. As the St. Jørgen's Hospital of Næstved was in use as a leprosary from about 1260 to about 1540, the skeletal material obtained here is contemporary with the graves in Æbelholt and Øm cloisters, and thus presents the comparative material wanted.

Since my investigations are not completed (8), it is as yet impossible to give a full description of the entire skeletal findings. It may suffice to describe one skeleton, as a general type of the Næstved skeletons.

Skeleton of a woman aged 40-50, with facies leprosa from the medieval graveyard for lepers at Næstved.

Fig. 5 shows the skeleton (No. 8) in the grave. It was rather difficult to isolate this skeleton before removing it since its legs extended about 50 cm. under the wall of the farmhouse, and the soil threatened to fall down over the skeleton as well as me while I was removing the bones. It will be noticed that the face looks very queer as three of the upper incisors, viz. 2, 1 + 1, are missing.

Figs. 6 and 7 show the skull from the front and in profile. The lower half of the entire nasal aperture has been flattened markedly, since all the bony projections, including the spina nasalis anterior, have disappeared completely as the result of a pathological process. Also, the processus alveolaris, corresponding to the missing incisors, has undergone atrophy, indicating that the three incisors were lost in vivo. The

fact that the corresponding lower incisors are noticeably "prolonged" and, moreover, present on their oral surface an enormous layer of tartar, likewise indicates that the missing upper incisors were lost for some length of time before death.

FIG. 5

Skeleton No. 8, of a woman aged 40-50, suffering from leprosy.

Besides these cranial changes which presumably must be interpreted as resulting from absorption by osteoclasts, the absence of the entire osseous nasal septum and the other bones in the nasal cavity is to be mentioned. In addition, there is a very large perforation of the hard palate. These pathological processes indicate that the entire nasal region was the site of an extensive destructive process in vivo.

FIG. 6

Facies leprosa. Note the changes involving the lower half of the apertura piriformis and the atrophy of the alveolar process of the maxilla corresponding to incisors 2, 1 + 1.

FIG. 7

Facies leprosa. Note the complete lack of a spina nasalis anterior.

FIG. 8

Feet of skeleton No. 8. Note the typical leprous changes, especially the concentric diaphyseal atrophy corresponding to the basal phalanx on the third toe of the left foot.

These characteristic changes, localized especially at the lower part of the apertura piriformis and the adjacent part of the alveolar process, are seen on more than one half of the Næstved skulls—and, as far as I have been able to find, they have not been described before, probably

FIG. 9.

A small section of the graveyard with the author working on the excavation of the skeletons.

not having been observed either. As these cranial changes are found in skeletons whose hands and feet present the typical and well-known deformities encountered in neural leprosy and mixed leprosy, but are not known to appear in any other disease, it seems justified to consider them symptomatic of the one disease, leprosy, the victims of which were buried in this medieval cemetery.

In analogy to patients suffering from tuberous leprosy and presenting

a facies leontina as characteristic of their disease, we now may speak of a "facies leprosa" of the skulls where the pathological changes are localized at the apertura piriformis and its surroundings, extending over the processus alveolaris corresponding to the incisors 2, 1 + 1, 2. The osseous changes appear as a pronounced atrophy of all projecting bones—especially the spina nasalis anterior—which gradually disappear; and often the lamina externa is very thin or absent so that the osseous cells of the diploe and the vascular canals are laid open, and the surface of the bone resembles that of coarse pumice stone.

Fig. 8 shows the feet of this skeleton. Here the pathological changes are so typical of lepra mutilans that further comments are superfluous.

As the facies leprosa is the most frequent pathological change in the Næstved skeletons, it will be of great interest to see to what extent this phenomenon may be demonstrated among the lepers of our days.

Without anticipating the results of such an investigation I may mention that the leprologists in Bergen, Norway, so far have demonstrated roentgenologically the presence of facies leprosa in five cases. In the future, observation of atrophy of the anterior nasal spine as a symptom of leprosy may conceivably be assigned a certain role in the clinical aspects of leprosy. If this be the case—and it seems highly probable—I shall have been able to prove that a skeletal archeologist and palaeopathologist too may be able to contribute to the development of modern clinical medicine by pointing out and elucidating certain hitherto unrecognized, though important and rather common, specific pathological bone changes.

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MORE MANUSCRIPTS OF LEONARD OF BERTIPAGLIA AND JOHN DE TRACIA

LYNN THORNDIKE

In 1936 I contributed to this periodical (vol. 4, pp. 257-260) a brief note concerning a manuscript at the Vatican, Palatine Latin 1319, seen in the summer of 1935, in which were found together the two surgical works by Leonard of Bertipaglia and John of Braccia or Ptraccia or Tracia, of which I had treated in successive chapters of *Science and Thought in the Fifteenth Century* (1929) on the basis of several manuscripts of each in which they were found separately. In this later note I listed additional manuscripts of Leonard's work, including three which I had examined and four which I had not seen. Then Mussolini's Abyssinian policy so disgusted me that I did not revisit Italian libraries while abroad in 1937, 1938, and 1939. War years then intervened, and it was not until the spring of 1951 that I examined at Florence two of the manuscripts of Leonard's work which I had not seen before [1]—the third at Prague was still inaccessible—and came across unexpectedly another manuscript of John of Ptraccia's work at the Vatican.

Riccardian 858 (L. III. v) is a quite legible paper folio of the fifteenth century containing only the work of Leonard of Bertipaglia, which begins on fol. 1r and ends at fol. 82r. On fol. 1r there is first a paragraph of twelve lines with the usual opening of the prologue, " Incipiamus ergo in nomine domini nostri . . ." This is followed by a second paragraph of three lines, which runs as follows:

Hec sunt recepte date per magistrum L. de B. a. d. M.CCCC.XXI suis sociis qui deputatus fuit ad lecturam per rectores ducalis dominii in studio Paduano et hoc super 3am et 4am et 5am fen quarti canonis Avicenne.

This is practically identical with the passages quoted from two other manuscripts in *Science and Thought in the Fifteenth Century*.[2] But at the close of the text of the second astrological tract or supplement [3] is the passage:

[1] The MS catalogued by Lami in 1756 as N. IV. xv, paper quarto, Paglis, Berto, has since disappeared.

[2] At. pp. 59-60.

[3] The first astrological tract on the judgment of wounds according to conjunctions of sun and moon in the twelve signs began at fol. 77r; the second, on aspects, at fol. 79r. For their tables of contents see *Science and Thought*, pp. 273-74.

Sit ergo gratia brevitatis nunc finis huic tractatui de aspectibus copulatum (*sic*) in hac forma abreviationis deductum per Leonardum de Bertapalea Paduanum anno M.CCCC.XXIV de mense Martii.[4]

The first chapter of the first tractate opens as usual: "Flegmon est apostema sanguineum rubei coloris . . ." In the seventh chapter, here headed simply "De cancrenis,"[5] is a "Marvelous and Secret Experiment related through exorcism by demons to Master Peter of Abano" for use against the pest.[6] In connection with cancer Leonard remarks that, when a patient suffering from a desperate disease is accepted by a scientific physician, it is rarely the case that this does not involve him in vituperation rather than praise.[7] Which may serve to explain why such cases so often came into the hands of quacks and empirics. The transition from the third to the fourth Fen occurs in our manuscript at fol. 25r, while that from the fourth to the fifth Fen goes unnoted, as in other manuscripts and the printed text.[8] In the chapter on fracture of the cranium our text includes the personal remarks of Leonard to his son and the extraction of the bit of bone lodged in the hollow of the brain,[9] and the case of the rustic, Gazabinus,[10] which are absent from the printed version.

Another manuscrpit at the Laurentian Library, Ashburnham 217, a double-columned paper volume of the fifteenth century, contains a portion or portions of Leonard's work. The printed catalogue,[11] which I followed in my note of 1936, assigned only five leaves of this volume to Leonard as Recipes Extracted from his Practica,[12] but the following leaves on fracture of the cranium[13] and the astrological judgement of wounds,[14] which it lists as two anonymous tracts, are also Leonard's.

Vatican Latin MS 2482 is a double-columned paper volume of the

[4] Cf. *ibid.*, p. 61, note 8.

[5] Instead of "De cancreno et aschachilo et herpestiomeno et curis eorum," as *ibid.*, p. 271.

[6] MS Riccard. 858, fol. 8r.

[7] *Ibid.*, fol. 22r: "Omnis autem desperata egritudo accepta a scientifico medico raro est quin non ducat ipsum potius in vituperium quam in laudem."

[8] Cf. *Science and Thought*, p. 66.

[9] Riccard. 858, fol. 68v; cf. *Science and Thought*, pp. 71-73.

[10] Riccard. 858, fol. 70v.

[11] Ministero della pubblica istruzione, *Indici e Cataloghi*: VIII, I *Codici Ashburnhamiani della R. Biblioteca Medicco-Laurenziana di Firenze*, vol. I, Fasc. 3, Roma, 1891.

[12] Ashb. 143 (217.-149), fols. 95-99: Recepte extracte ex pratica L. de Bertapaglia de Padua, "Cerotum in principio floris(?) . . . / . . . et bulliant usque ad inspissationem et factum est." This section of text ends on fol. 99rb, leaving the rest of that column blank.

[13] At fols. 99va-106va, with the case of the rustic, Gazabinus, at fol. 102ra.

[14] At fols. 106va-108rb.

fifteenth century [15] containing medical works. Of these the first (fols. 1ra-70rb) is *Consilia* of Gentile da Foligno, fourteenth century physician, of which this copy is dated August 22, 1443. It is followed by tracts on baths by Gentile and by Eugubinus of Monte Catino, by Pietro d'Abano on poisons, Pietro da Tossignano on the pest, Walter Agilon on urines, the *Antidotarium* of Bartholomaeus de Montagnana, the *Practica* of Pietro da Tossignano, a copy made in 1445, and Antonio Guaineri on fevers. It is in the distinguished company of this galaxy of medical stars that we find the surgical work, here anonymous, of John de Braccia, Prattia, Ptraccia or Tracia.[16]

It does not contain the prooemium, thus far found only in Vienna 4751, but is recognizable by the usual text incipit, "Causa antecedens flegmonis est intrinseca ex repletione humorum . . ." and its frequent allusions to "my caustic waters" and "in my time." It does not share the prevalent desinit, ". . . in duplici quantitate respectu vini," having a different wording at this point, as we shall see, and going on about twenty lines farther—not for fifteen more leaves as Vienna 4751 does—to terminate, ". . . ad consuetudinem suam primam." [17]

Our manuscript gives us yet another version of the text. In length and wording it seems closer to Vienna 2358 and the other three manuscripts than it does to Vienna 4751. Like them it locates cases at Milan, not Crema. In the passages on sephiros and cancer, it resembles the other manuscripts, and not Vienna 4751.[18] But it is like 4751 in omitting the mention of Nicolaus de Andrio and in mentioning an illiterate Englishman at the court of Galeazzo Visconti, although it merely calls him a herbalist and does not name him Tonolinus Melegeta nor attribute a cure of Galeazzo to him.[19] Again, while the four other manuscripts all conclude the final chapter on fracture of the cranium with the

[15] I noted some items from this MS in "Vatican Latin Manuscripts in the History of Science and Medicine," *Isis*, XIII (1929), 53-102, but not the surgical work of John of Ptraccia, at that time as yet unknown to me.

[16] At fols. 221ra-262vb.

[17] This corresponds to ". . . revertatur ad consolidationem," in Vienna 4751, fol. 197v, while Codex Latinus Monacensis 273 similarly adds to the usual desinit: "Post revertatur ad consolidationem suam primam. Finis. Laus deo. Explicit prattica Cyrugie Iohannis de Prattia anno domini 1453 in vigilia nativitatis Christi."

[18] *Science and Thought*, pp. 96, 99-100.

[19] To show the divergence, I give below in parallel columns the text from our MS and that of Vienna 4751 (already given in *Science and Thought*, p. 92, note 46).

Vatic. lat. 2482, fols. 249vb-250ra	Vienna 4751, fol. 131r-v
Verum q. in curia domini Galeazi Vice (*250ra*) comitis erat quidam anglicus her-	Vidi meo tempore quendam Tonolinum anglicum illiteratum qui dabat pacientibus

statement that, if the patient wants to drink wine, it should be weak and watery, with twice as much water as wine, our manuscript agrees with Vienna 4751 in recommending that he avoid wine entirely.[20]

But our manuscript differs from Vienna 4751 as well as from at least three of the other four, in not including the method of removing the stone by operating with a silver stylus. On the other hand, it includes the chapters on castration, hermaphroditism, dropsy and "varices"[21] which are absent from some manuscripts.[22] Its text for the chapter on *Nata* is about the same as that which I published in 1929;[23] for the case of dropsy it agrees with the variants of Codex Latinus Monacensis 273 rather than those of Vienna 4751.[24] Its account of the case at Milan[25] opens:

Mediolani enim dum essem in cura magnifici domini mei Karoli filii illustris d. d. Bernabonis de Vice comitibus de quadam parva exitura, accessit ad me quidam amicus domini Karoli de Florentia qui pluribus diebus passus fuerat exituram in cossa sinistra, in cuius cura multi medici de Mediolano interfuerant pluribus diebus. Ostendit mihi istam cossam . . .

Incidentally, in connection with the problem of the identity of John of Braccia or Ptraccia or Tracia, may be noted a statement in the *Chartularium* of the University of Bologna that "Iohannes de Bracchiis de Taliatis, artium doctor ac medicorum ac artistarum vicerector," gave permission in 1413 to Battista de Viterbo, a licentiate in medicine, to take books from Bologna.[26]

bularius sine literis qui in vulneribus cassalibus dabat vinum fortem et potens infirmis reddendo talem causam quod talia vina inducebant febrem que exsiccebat saniem. Et multos isto modo curabat quos vidi et audivi. Sed hoc potest potius attribui virtuti quam vino quoniam ista cura est inrationabilis.

talia ulcera cassalia meliora vina quam poterant reperiri et adducebat talem rationem quia dicebat quod talia medicamina erant provocancia magnas (*131v*) febres que erant causa exicacionis saniei. Vidi unum saltem dominum Galeazi vicecomitis curatum per illum modum et per suprascriptum magistrum Tonolinum et vocabatur Melegeta. Vere tamen non interfui. Vidi tamen suprascriptum Melegetam narrantem.

[20] Vatic. lat. 2482, fol. 262va-b; Vienna 4751, fol. 107r-v.
[21] Vatic. lat. 2482, fols. 236vb, 237ra, 238vb.
[22] *Science and Thought*, p. 91.
[23] Vatic. lat. 2482, fols. 231vb-232rb; *Science and Thought*, pp. 280-81.
[24] Vatic. lat. 2482, fol. 237; *Science and Thought*, pp. 278-79.
[25] Vatic. lat. 2482, fol. 226vb; *Science and Thought*, pp. 282-83.
[26] *Chartularium studii Bononiensis*, Bologna, 1909 et seq., II, 207. Yet no such person as Iohannes de Bracchiis de Taliatis appears in the faculty *Rotuli* as published by Dallari; see *Science and Thought*, 86-87.

AN HYPOTHALAMIC INTERPRETATION OF HISTORY*

W. R. BETT

Being engaged at present in the task of writing a book on the amphetamines in clinical medicine, I have been impressed by my ignorance of that highly romantic area of the brain on which they are supposed to act—the hypothalamus, and at the same time I discovered that all my life I have been dwelling at the cortical level. How much happier should I not have been, had I contented myself with existing at the hypothalamic level! At the moment, then, I seem to be viewing life and its problems through the eyes of an hypothalamic specialist, and as an hypothalamic specialist—if I may thus describe myself—I wish to present for your consideration this highly speculative attempt at an hypothalamic interpretation of certain events and characters in history.

The hypothalamus is a tiny area, not larger than the size of a pea, at the base of the brain, beneath the thalamus, surrounding the third ventricle, and close to the stalk of the pituitary gland. Besides regulating pituitary activity, it acts as a subcortical co-ordinating centre of the autonomic nervous system, regulating temperature and sleep, and co-ordinating emotional expressions with the body defences in the face of the fundamental insecurity of life. Responsible for the bodily changes with which we react to our environment, it is concerned with the affective elements of fear and rage. It is our emergency control station, entrusted with problems of simple survival. Among the pathological disorders of the hypothalamic region may be included diabetes insipidus, adiposogenital dystrophy, narcolepsy, certain forms of epilepsy, and enuresis. Some sixteen different nuclei have been described in the hypothalamus. Obesity may follow experimental lesions of some of these, while lesions inflicted on others produce gastric disturbances of all stages of severity, ranging from hyperaemia to erosion and perforation. It is believed that the nervous defence mechanism mediates through the hypothalamus, causing the adrenal glands to pour out adrenaline to control the blood-vessels and to regulate water-metabolism and blood-sugar.

There is much to interest the hypothalamic specialist in the medical case-records of some of the heroic figures in history, but I shall content

* Read at the twenty-fifth annual meeting of the American Association of the History of Medicine, Kansas City, May 2, 1952.

myself with two. One of the first things that strikes one about Alexander the Great is his hypersomnia—an hypothalamic symptom. According to Plutarch, he would sleep after supper until the following noon, and often all day. Towards the end of his life he was subject to uncontrollable fits of rage—another hypothalamic symptom. On one occasion, having been insulted by Clitus, he seized the first thing his hands lighted upon—an apple—and threw it at Clitus's face. Shouting aloud in the Macedonian idiom, an indication in Alexander of a return to savagery—or should it be the hypothalamic level?—he snatched a pike from the hand of a guard and mortally wounded Clitus.

So much has been written about the great Napoleon that one feels diffident to add to the literature. My excuse must be that he fits so perfectly into my story. What are the hypothalamic facts concerning him? We know that as a boy and a young man he was exceedingly thin, but as he approached forty, a striking change occurred in his physical constitution. His face became soft, fleshy, almost feminine, and he turned heavy and later obese. At the same time he began to suffer from bouts of sleepiness, often taking naps in the day-time. At the post-mortem examination the body was found to be heavily covered with fat. The sternum, which is ordinarily very superficial, was completely concealed by a layer of fat at least an inch thick, while the abdominal fat measured two inches. The heart was also described as participating in this condition of obesity. There was scarcely any hair on the body, and that of the head was thin, fine, and silky. The penis and testicles were very small; the pubes resembled the mons veneris, the shoulders were narrow and the hips wide. In confirmation of these autopsy findings we have authenticated observations during life of changes in the secondary sexual characteristics: not only in Napoleon's face, but also in his body was there a definite tendency to femininity, "He had a roundness of figure not of our own sex," de Las Cases once remarked, and Dr. Francesco Antommarchi recalls an occasion when the exiled emperor himself called attention to this fact: "Look, Doctor," he said, coming naked out of his room, after being rubbed with alcohol. "Look, what lovely arms! What smooth white skin, without a single hair! What rounded breasts! Any beauty would be proud of a bosom like mine!" All this is suggestive evidence in favour of a diagnosis of adiposogenital dystrophy. In this connexion Napoleon's attitude to sleep is of considerable interest. In his younger days he looked upon sleep as unavoidable loss of time, claiming that a nap of three or four hours was quite sufficient for good health. A notable

change took place at the battle of Dresden in August 1813, when the victor showed such indecision as to convert success into defeat. In hot pursuit of the enemy he suddenly stopped and turned back. "I had a terrible pain in my stomach," he explained. "It was so violent I could not go on." A whole month he remained at Dresden, sleeping much of the time. In October there were two remarkable days when messages piled up on the table, unanswered, while he slept almost continuously.

Then came the battle of Leipzig. The French retreated over a bridge which, through an officer's mistake, was blown up too early, when only half the men had crossed. Napoleon, who had dropped off to sleep, was awakened by the noise of the explosion.

Finally there is the battle of Waterloo—a beautifully planned battle, but what went wrong? Physically and mentally weary, Napoleon was in a state of utter prostration. Six precious hours had been lost, for it was only at 11 in the morning that he started to move his troops into action, instead of at daybreak. By that time the Duke of Wellington had received his much needed support. When a regiment marched before the emperor's quarters before the battle, shouting "Vive l'Empereur!", Napoleon was fast asleep astride a chair, his head resting on his hands which clutched the back of the chair. A much more prosaic interpretation of his behaviour on that momentous day is that he was the victim of a haemorrhoidal crisis. In acute pain and unable to ride his horse, during the greater part of the battle he was on foot, walking with his legs widely apart.

What pathological condition determined these recurrent attacks of drowsiness in the great emperor? There is no evidence worthy of the name, that he ever suffered from *grand mal*, though it must be admitted that his periodic attacks of vomiting, followed by a state of lethargy, verging almost on unconsciousness, and precipitated by prolonged physical exertion, fatigue, or intense emotional excitement, were epileptiform in their nature. The legend that Napoleon was an epileptic appears to rest primarily on a statement in Talleyrand's memoirs. In September 1805 at Strasbourg, in Talleyrand's presence, he was seized after dinner with a fit and fell to the ground, struggling convulsively for some fifteen minutes. No mention, however, is made of a cry preceding the seizure, of biting of the tongue, foaming at the mouth, and unconsciousness.

Was it *petit mal* that was responsible for those curious bouts of torpor which overcame the emperor at critical moments in his later battles? His earliest recorded 'fit' dates back to the days of his youth. Because of

a minor offence a monitor made him eat his meal on his knees before the entire dining-room. His pride cut to the quick, Bonaparte had a violent attack of vomiting and fell down in a dead faint. According to Cesare Lombroso, Napoleon suffered from psychotic epilepsy with all its impulses, delusions of grandeur, egocentricity, and utter lack of moral sense. His extreme sensitivity was but another symptom of epilepsy. Lombroso would have us believe that Napoleon heard sounds and smelled odours that no one else could notice—possible pre-epileptic aurae.

To some medical authorities Napoleon's bradycardia which was quite constant when he was emperor, is of particular significance, its combination with syncopal and epileptiform attacks suggesting a possible diagnosis of Stokes-Adams syndrome. Whether or not this syndrome is hypothalamic or anterior-pituitary in origin is, however, a matter for argument.

Where do we go from here? Admitting the lack of satisfactory evidence that Napoleon suffered from *grand mal*, it is tempting to speculate on the possible existence of a *forme fruste* of this condition, ushered in by a pre-epileptic aura taking the shape of what Hughlings Jackson called the "dreamy state." If such a view is not tenable, there is always the possibility of *petit mal*. We know from recent work that physiological stimulation in the right mode and rhythm can produce an epileptic type of discharge in sensitive individuals who have never had an epileptic fit. Associated with this effect is some manifestation of hypothalamic disorder, such as disturbance of sleep, water metabolism, temperature regulation, or pituitary function. An electro-encephalographic study of this correlation in Napoleon's case would have been of the greatest interest, as would also have been his response to the judicious administration at critical periods in his career of Benzedrine or Dexedrine, which, clinically at least, are believed to act on the hypothalamic region of the brain. How intriguing to think that these drugs might have changed the fate of Europe!

If one is correct in describing Napoleon as an hypothalamic type, his fits may well have been a consequence of disturbed anterior-pituitary function, associated with transient spontaneous hypoglycaemia. His paroxysms of tears, his attacks of fury, his shining Olympian heights, his deep Plutonian darknesses, may be interpreted in terms of temporary derangement of the adrenals and the thyroid—nervous defence mechanisms mediating through the hypothalamus.

The mystery of Napoleon's gastric history has never been satisfactorily solved. That he had a carcinoma of the stomach is vehemently believed by some and as vehemently denied by others. His dietetic habits—he seemed incapable of eating a leisurely meal, gulping down food both hot and cold—no doubt led to a chronic gastritis. To suggest for a brief and romantic moment that the hypothalamus might be held responsible for producing gastric hyperaemia and even erosions is probably too far-fetched for you and, I think, even for me.

In concluding this discursive and quasi-philosophical communication, which I must confess I have enjoyed in rather a perilous way, like dwelling in a house built on sand, I certainly cannot surrender myself gratefully to the illusion that, in the words of Sir Thomas Browne, I have come unto the heart of truth. May I leave it to you to decide whether at least I have come unto its pericardium?

REFERENCES

Antommarchi, Francesco: *Les derniers moments de Napoléon.* Paris: Garnier Frères. 1898, *i*, 125-6.

Memoirs of the Prince de Talleyrand. Translated by R. Ledos de Beaufort. London: Griffith Farran Okeden and Welsh. 1891, *i*, 223.

The post-mortem appearances are described in Arnold Chaplin: *The illness and death of Napoleon Bonaparte* (*a medical criticism*). London: Hirschfeld Brothers, Ltd. 1913, pp. 54-5.

Lombroso, C.: *The man of genius.* London: Walter Scott. 1891.

MEDICAL WORKS IN FACSIMILE, A BIBLIOGRAPHY

THOMAS E. KEYS*

It has seemed to the compiler that there has long been a need in medical libraries for a listing of medical works that have been reproduced in facsimile. Most of the works that are included in the following bibliography are almost impossible to obtain in original editions, and many of the facsimiles are scarce. But enough of the facsimiles are available so that the average medical library may have some of them for a small financial outlay. For all practical purposes, it would seem that facsimiles are as useful as originals. That is, they can be made to stimulate an interest in medical history, especially for the preparation of exhibits. For the scholar, also, the text and the notes that accompany the text are of importance.

The term *facsimile* needs defining, since there is confusion about it. For the purposes of this bibliography it will mean the reproduction of original texts by a photographic printing process (photo-offset) and not by letterpress typography. Microfilms and ordinary photostatic reproductions are not included. Facsimile, as defined by Webster's *New International Dictionary*, means *an exact and detailed copy*. This does not necessarily refer to size, and therefore some items are included that are in reduced size.

The following works, although handsome books in themselves, are examples of the kind that have not been included, since they do not qualify:

The Gouernayle of Helthe: With the Medecyne of ye stomacke. Reprinted from Caxton's edition (circa m. ccccxci.) With introductory remarks and notes by William Blades. London, Blades, East and Blades, 1858. Front., viii, 25 pp., Facsimile 18 ll., followed by "an annotated reprint of the foregoing tract" 20 ll., glossary pp. (103)-110. *Note*: This is a letterpress reproduction of the second medical book published in English. The orthography has been strictly adhered to. It is printed page for page, line for line and word for word from the original. The types were cast in pewter in order to achieve the softness of the impressions of the early printers.

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*From the Mayo Clinic Library, Rochester, Minnesota.

Harvey, William, 1578-1657: The anatomical exercises of Dr. William Harvey. De motu cordis 1628: De circulatione sanguinis 1649: the first English text of 1653 now newly edited by Geoffrey Keynes. London, The Nonesuch Press (1928) xvi, 202 p. 1 l. *Note*: Not a facsimile but an excellent reprint.

Hunter, William, 1718-1783: Anatomia uteri humani gravidi tabulis illustrata . . . The anatomy of the human gravid uterus exhibited in figures . . . London, Printed for the Sydenham Society, 1851. 1 p.l., 16 p. 34 pl. (part double) (added t. p.: The Sydenham Society.) (Publications) Latin and English in parallel columns. *Note*: The present volume consisting of 34 folio plates with descriptive letter-press was issued to Members of the Sydenham Society. The Council having obtained possession of the original copper plates was able to reproduce original impressions.

Jenner, Edward: An Inquiry into . . . the Cow Pox. Ed. 2. London, 1800. V, 184 pp., 4 pl. (Sydney, Thomas Richards, Government Printer, 1884). *Note*: The preface describes this as "a perfect facsimile"; it is really a typographical reproduction, and not even page for page.

Leonardo da Vinci: Tabula anatomica Leonardi da Vinci summi quondam pictoris e Bibliotheca augustissimi Magnae Britanniae Hannoveraeque Regis depromta, Venerem obversam e legibus naturae hominibus solam convenire, ostendens. Lunaeburgi, Harold & Wahlstab, 1830. Large 4°. *Note*: This reproduction was made by lithograph in Germany in 1830. It illustrates the fallacy of "facsimiles" before the days of photography. What is obviously the man's right leg is given a left foot and the girl's left leg a right foot. The mistake is not Leonardo's. In the original he merely indicated the soles of the feet. It was the lithographer who added the toes. Compare the faithful, photographic facsimile in 'Fogli A,' vol. 1, folio 7 verso. A transcription and translation of Leonardo's notes is in Quaderni d'Anatomia, vol. 3, p. 6 (folio 3 verso).[1]

Nightingale, Florence: Notes on Nursing. A facsimile of the first edition published in 1860 by D. Appleton and Co., New York, with a foreword by Virginia M. Dunbar. New York, D. Appleton Company, 1946. xiv, 140 pp. *Note*: According to the title page this is a facsimile of the first American edition; but it is only an imitation, not even a line-for-line reprint!

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[1] Dr. J. B. de C. M. Saunders has brought to my attention several much earlier reproductions of Leonardo da Vinci's anatomical drawings issued often as separate plates containing a portion or the whole of the pages. Examples: 19003 (Fogli A4). Head of the man at top of recto (Hollar, Parthey) 1578. 19012 (Fogli A13). Two anatomical heads (Hollar, 1660, Parthey, 1769, 1770). For more information consult Kenneth Clark's: *A Catalogue of the Drawings of Leonardo da Vinci* . . . New York, Macmillan, 1935, 2 v. More of Leonardo's drawings were published by John Chamberlain in his *Original Designs of the Most Celebrated Masters in . . . His Majesty's Collection*, engraved by Bartolozzi, etc. . . . London, 1812. In addition, there were many other magnificent engravings by Bartolozzi issued at various dates. These have not been included, since they have been engraved by hand and their dates precluded the use of reproduction by a photographic printing process.

ACKNOWLEDGMENTS

The compiler wishes to thank the librarians of the institutions mentioned under "Code Names" for their considerable assistance in this project. Thanks are also due to Drs. W. W. Francis and Dorothy Schullian for their many editorial suggestions. As on past occasions, Dr. Chauncey Leake has given freely of his time and counsel.

CODE NAMES OF SOME LIBRARIES POSSESSING COPIES OF THE FACSIMILES

Belt	Elmer Belt Library, Los Angeles, California.
CSmH	Henry E. Huntington Library & Art Gallery, San Marino, California.
CSt-L	Lane Medical Library, Stanford University Libraries, San Francisco, California.
CU-M	University of California, Medical School, San Francisco, California.
CaM-O	McGill University, Osler Library, Montreal, Quebec, Canada.
CtY-M	Yale University, Medical School, New Haven, Connecticut.
DLG	Library of Congress, Washington, D. C.
DSG	Armed Forces Medical Library, Washington, D. C.
ICJ	John Crerar Library, Chicago, Illinois.
ICU	Illinois Chicago University.
LNT-M	Rudolph Matas Medical Library, Tulane University, New Orleans, Louisiana.
MdBW	William H. Welch Medical Library, Baltimore, Maryland.
MBM	Boston Medical Library, Boston, Massachusetts.
MH-M	Harvard University, Schools of Medicine and Public Health Library, Boston, Massachusetts.
MiU	University of Michigan, Ann Arbor, Michigan.
MnRM	Mayo Clinic Library, Rochester, Minnesota.
MnU	University of Minnesota Medical School, Minneapolis, Minnesota.
NNN	New York Academy of Medicine, New York City.
OClCM	Cleveland Medical Library Association, Cleveland, Ohio.
O'M	Dr. C. D. O'Malley, Stanford University, Stanford, California.
PPC	College of Physicians, Philadelphia, Pennsylvania.
Sg	Royal College of Surgeons Library, London, England.
St.B	St. Bartholomew's Hospital Medical College Library, London, England.
Waller	Dr. Erik Waller, Stockholm, Sweden.
Wellcome	Wellcome Historical Medical Museum Library, London, England.

LIST OF FACSIMILES

Adelmann, H. B.; *see* Fabricius, H.

Aldinus, J.; *see* Galvanus, A.

Alexander, E. P.; *see* Pharmacopoeia Londinensis.

Alte Meister der Medizin und Naturkunde, in Facsimile-Ausgaben und Neudrucken nach Werken des 15-18 Jahrhunderts; unter Mitwirkung von G. Burkhard, S. Günther, Hans Schnorr von Carolsfeld, K. Sudhoff, hrsg. von Gustav Klein. München, C. Kuhn, 1910-1912. 5 v. illus.

Note: Bibliographical details are given under main entries, *q. v.* Abbreviated contents follow:

v. 1. Das Frauenbüchlein des Ortolff von Bayerland, gedruckt vor 1500. Begleit-Text von G. Klein, 1910.

v. 2. Eucharius Rösslin's "Rosengarten" gedruckt im Jahre 1513. Begleit-Text von Gustav Klein, 1910.

v. 3. Braunschwig (Hier.): Das Buch der Cirurgia. Strassbourg, Joh. Grüninger, 1497. Begleit-Text von G. Klein, 1911.

v. 4. Sudhoff (K. F. J.): Graphische und typographische Erstlinge der Syphilisliteratur a. d. Jahren 1495 und 1496. 1912.

v. 5. Thomas Brabantinus: Die Gynäkologie des Thomas von Brabant. Hrsg. von Chr. Ferckel, 1913.

American Bottlers of Carbonated Beverages; *see* Priestley, J.

Anatomie Mandchoue, facsimilé du manuscrit no. 11 du fonds oriental de la Bibliothèque royale de Copenhague. Publié sous les auspices de M. Abr. Clod-Hansen par M. Victor Madsen. Trad. du texte Mandchoue par M. Vilhelm Thomsen. Copenhague, Bibliothèque Royale, 1928. 15 pp., 90 pl. in folio.

Note: For more information see Johnsson, J. W. S.: L'anatomie Mandchoue et les figures de Th. Bartholin, étude d'iconographie comparée. Det Kgl. Danske Videnskabernes Selskab. Biologiske Meddelelser, vii, 7.

Copies: CSt-L; CU-M; CtY-M; DSG; MdBW; MH-M; MnRM; NNN; Waller.

Apuleius Barbarus: The Herbal of Apuleius Barbarus from the Early Twelfth Century Ms. formerly in the Abbey of Bury St. Edmunds (Ms. Bodley 130) Described by R. T. Gunther . . . Oxford, Roxburghe Club, 1925. XXXVI, 4 pl., 148 pp. (mostly facs.).

Note: "Dedicated and presented to the President and members of the Roxburghe Club by Edward George Spencer-Churchill."

Copies: CtY-M; DLC; MH-M; MiU; Sg.

———: The Herbal of Pseudo-Apuleius, from the 9th century manuscript in the Abbey of Monte Cassino [Codex Casinensis 97] together with the first printed edition of Joh. Phil. de Lignamine [Editio princeps, Romae, 1481] both in facsimile, described and annotated by F. W. T. Hunger, Leyden, E. J. Brill, 1935. fol. xxxix, 168 pp., 1 p. (Edition ltd. to 200 copies).

Note: Hunger reproduces in toto the two documents.

Copies: CU-M; CtY-M; DLC; MdBW; MiU; NNN; PPC; Wellcome.

Arcana Fairfaxiana Manuscripta: A Manuscript Volume of Apothecaries Lore and Housewifery Nearly Three Centuries Old, used and partly written by the Fairfax family. Reproduced in facsimile of the handwritings. The Introduction by George Weddell. Newcastle on Tyne, Mawson, Swand & Morgan, 1890. xlviii, 206 pp., leather sm 4to.

Copies: CtY-M; DLC; DSG; ICJ; MdBW; MiU; NNN; PPC; Sg.

Archaeological Survey of India; *see* Bower manuscript.

Arderne, John, fl. 1307-1370: De Arte phisicali et de cirurgia of Master John Arderne, Surgeon of Newark, dated 1412. Tr. by Sir D'Arcy Power . . . from a transcript made by Eric Millar . . . from the replica of the Stockholm manuscript in the Wellcome Historical Medical Museum . . . London, J. Bale, Sons and Danielsson, Ltd. and New York, William Wood and Co., 1922. xii, 60 pp. Col. front. and 13 pl. (Plate 12 is reproduced twice).

Note: The manuscript which is reproduced here is an epitome of the works of the author made in 1412 some years after his death. The original is written on 12 skins of vellum sewn together to make a scroll 17 ft. 8 inches long by 15 inches wide.

Copies: CSt-L; CU-M; CaM-O; CtY-M; DLC; DSG; ICJ; MdBW; MBM; MiU; MnRM; MnU; NNN; OClCM; PPC; Sg; St. B; Waller; Wellcome.

——: . . . Practica de arte phisicali et de cirurgia [1420]. Stockholm, Generalstabens Litografiska Anstalt. 1929. 4 pp., Facs. issued as one continuous folding plate in imitation of the original ms. (5 1/2 meters in length).

Note: This is reproduced from the original manuscript in the Royal Library of Stockholm. (Edition limited to 100 copies) Dr. Harvey Cushing received a replica of the Arderne manuscript from Sven Hedin in 1929. It was made by the Swedish artist, Carl Olausson. It is on 12 leaves of vellum in a roll about 5 yards long. (Now in Yale Medical Library. Historical Library). See Sven Hedin's memoirs, v. 2 (Stormän och Kungar. Stockholm, Fahlcrantz and Gumelius, 1950).

Copies: CtY-M; MdBW; MnU; NNN; Waller.

Arnaldo da Villanova, d. 1313?: The Earliest Printed Book on Wine. By Arnald of Villanova, physician, surgeon, botanist, alchemist and philosopher, [1235-1311]. Now for the First Time rendered into English and with an Historical Essay by Henry Sigerist; with facsimile of the original edition, 1478. New York, Schuman's, 1943. 44 pp., facs. 15 ll. front.

Note: "A brilliant scholastic physician, a prolific worker, adept in alchemy, astrology and magic, a lay theologian and reformer, adviser and ambassador of kings and popes, muddled at times, lying at times, Arnald of Villanova was one of the most colorful figures of the Middle Ages." — H. Sigerist.

Copies: CSt-L; CaM-O; CtY-M; DSG; MdBW; MBM; MnU; NNN; PPC.

Artzney Buchlein, wider allerlei kranckeyten und gebrechen der tzeen, getzogen auss dem Galeno, Avicenna, Mesue, Cornelio Celso und andern mehr der Artzney Doctorn, seher nützlich tzu lesen . . . [Leyptzigk, Michael Blum, 1530]. facs. 23 ll. [Followed by the title pages of the five later printings of 1532, 1536, 1541, 1543, and 1563] 3 ll., [73 pp.].

Note: This facsimile edition with a critical investigation of the sources of the 1530 Zene Artzney was issued by Gustav Budjuhn with the preface by Karl Sudhoff as v. 2 in the Quellen und Beiträge zur Geschichte der Zahnheilkunde . . . , ed. by Curt Proskauer . . . , Verlag Hermann Meusser, Berlin, 1921. See also: Proskauer, Curt: . . . Pestregiment and Artzeney zu den Bösen Zähnen of the year 1531 . . . Bull. Hist. Med. 13: 83-95, 1943. This work, "Zene Artzney," was the first printed work devoted exclusively to dentistry.

Copies: DSG; ICJ.

Asling, C. W.; *see* Vesalius, A.

Auenbrugger, Leopold, 1722-1809: Leopold Auenbruggers Inventum novum: Faksimile nach der ersten Ausgabe . . . Hrsg. und mit einer biographischen Skizze versehen von Dr. Max Neuburger . . . Wien und Leipzig, J. Safár, 1922. v. p. front., ports., fold. facsims.

Note: Contains the original Latin text, the Engl. tr. by Forbes, the French tr. by Corvisart, the German tr. by Ungar and a life of Auenbrugger by Neuburger.

Copies: CaM-O; CtY-M; DLC; DSG; ICJ; LNT-M; MdBW; MBM; MiU; MnRM; MnU; NNN; OClCM; PPC; Waller; Wellcome.

Augsburg Pharmacopoeia; *see* Pharmacopoeia Augustana.

Averroes; *see* Ibn Rushd.

Aztec herbal; *see* The Badianus Manuscript.

Badger Pharmacist: The following early American pharmaceutical documents have been produced in facsimile in the Badger Pharmacist: (1) *Receipts to Cure Various Disorders.* By Ed. Stafford. *For my worthy friend Mr. Winthrop,* 1643. (April 1937), (2) Brown, W.: *The Lititz Pharmacopoeia,* 1778, (June-Dec. 1938), (3) Locke, W.: *A Drug List of King Phillip's War,* 1676 (Feb., 1939); and (4) *Coste's Compendium Pharmaceuticum,* 1780, (Dec., 1940).

Note: For bibliographic details check under author entries.

The Badianus Manuscript: The Badianus Manuscript (Codex Barberini, Latin 241) Vatican Library; an Aztec Herbal of 1552. Introduction, translation and annotations by Emily Walcott Emmart. With a foreword by Henry E. Sigerist. Baltimore, The Johns Hopkins Press, 1940. xxiv, 341 pp., incl. illus., plates (part. col.).

Note: The Badianus manuscript, an illustrated Aztec herbal completed in 1552, is America's earliest medical book. It is the work of two Aztec Indians, Martinus de la Cruz, a native physician who composed the work in Aztec, and Juannes Badianus, who translated the text into Latin. Both Indians were Spanish-educated Christians.

Copies: CSt-L; CU-M; CaM-O; CtY-M; DLC; DSG; ICJ; LNT-M; MdBW; MBM; MiU; MnRM; NNN; OClCM; PPC; Waller; Wellcome.

Baer, Karl Ernest von: De ovi mammalium et hominis genesi epistolam ad academiam imperialem scientiarum petropolitanam dedit. Lipsiae, Leopoldi Vossii, 1827. 3 pl., 40 pp., 1 l., 1 pl. [Issued in facsimile at Leipzig in 1927 by Hirschfeld].

Copy: DSG.

——: De ovi mammalium et hominis genesi . . . Lipsiae, Leopoldi Vossii, 1827. 40 pp., Corrigenda. Issued in facsimile in Isis as follows: [Sarton, George] The discovery of the mammalian egg and the foundation of modern embryology (no. xiii) with a complete facsimile of K. E. von Baer's fundamental memoir . . . Isis 16:315-330 and Facsimile, 3 p. l., 40 pp., 1 l. 1931.

Note: This facsimile was made from the copy belonging to the Harvard Museum of Comparative Anatomy. The facsimile is complete but somewhat reduced; the original measures 30 × 23.5 cm.

Copies: CSt-L; CU-M; CtY-M; DLC; DSG; MdBW; MH-M; MnRM; NNN; PPC.

Bagellardo, Paolo, d. 1492: Libellus de Aegritudinibus Infantium [Padua], Bartholomaeus de Valdezoccho and Martinus de Septem Arboribus, 21 Apr. 1472. 40 ll. Reproduced in facsimile in: Sudhoff, Karl, ed.: Erstlinge der Pädiatrischen Literatur. Drei Wiegendrucke . . . 1925. (q. v.).

Note: This is the earliest printed treatise dealing with diseases of children.

Copies: CSmH; CaM-O; CtY-M; DSG; MBM; MiU; MnU; NNN; PPC; Waller; Wellcome.

Baglioni, S.; *see* Theatrum Sanitatis.

Bancke's Herbal; *see* Herbal, An.

Bard, Samuel, 1742-1821: Two Discourses Dealing with Medical Education in Early New York . . . New York, Columbia University Press, 1921. 4 p. ll., facsimile ii, iii, 18 pp., 28 pp. Contents: A Discourse Upon the Duties of a Physician . . . [1769]. Discourse on Medical Education . . . [1819].

Copies: CSmH; CSt-L; CU-M; CtY-M; DLC; DSG; ICJ; MdBW; MH-M; MiU; NNN; PPC; Waller.

Barrett, W. P.; *see* Present Remedies Against the Plague.

Beaumont, William, 1785-1853: Experiments and Observations on the Gastric Juice and the Physiology of Digestion; Facsimile of the original edition of 1833. Together with a biographical essay, A Pioneer American Physiologist by Sir William Osler. Cambridge, Mass., Harvard University Press, 1929. xl, 280 pp., front., (port.).

Copies: CaM-O; CtY-M; DSG; MdBW; MBM; MH-M; MiU; NNN; PPC; Wellcome.

———: Experiments and Observations on the Gastric Juice and the Physiology of Digestion; Facsimile of the original edition of 1833. Together with a biographical essay, A Pioneer American Physiologist by Sir William Osler. New York, Peter Smith, 1941. xl, 280 pp., front., (port.).

Note: This is a reprint of the facsimile edition published in 1929.

Copies: CSmH; MnU.

Benivieni, Antonio: De abditis nonnullis ac mirandis morborum et sanationum causis . . . 1502. With a translation by Charles Singer and a biographic sketch by Esmond R. Long. (In Press).

Copy: MdBW.

Bibliotheca Medica Americana, v. 2; *see* Morgan, J.

Boeck, C. W.; *see* Danielssen, D. C.

Bonomo, Giovanni Cosimo: Osservazioni intorno a' pellicelli del corpo umano fatte dal dottor Gio: Cosimo Bonomo . . . in una lettera all' . . . Francesco Redi. Firenze, P. Matini, 1687. 1 l., 16 pp., illus. Reprod. in Lane, J. E.: Bonomo's Letter to Redi, an important document in the history of scabies. Arch. Derm. and Syphil. 18: 1-25, July, 1928.

Note: "It is, however, generally accepted as a fact that the letter of Bonomo to Redi contains the first accurate description of the (itch) mite, and it is accompanied by a drawing giving a fairly accurate picture of its appearance." John E. Lane. Richard Mead's English abstract of the letter is appended in facsimile. It was originally published as follows: Mead, Richard: An abstract of part of a letter from Dr. Bonomo to Signior Redi, containing some observations concerning the worms of humane bodies. Phil. Tr. Royal Society 23: 1296-1299 (Jan.-Feb.) 1703.

Copies: CSt-L; CU-M; CtY-M; DSG; MdBW; MiU; MnRM; NNN; O'M; OClCM; PPC.

Boston Medical Library; *see* Stafford, E.

Bower manuscript, the: . . . Facsimile leaves, Nagari transcript, Romanized transliteration and English tr. with notes, Ed. by A. F. Rudolf Hoernle . . . Calcutta, India, Supt. Government Printing, 1893-1912. (Archaeological Survey of India, New Imperial Series, vol. 22) xciv, 5 pl., xcviii (a & b), [V] VII, 401 pp., 54 pl., fol.

Note: Text of the Sanskrit Navanitaka, probably 2nd century, A. D. The Bower ms., named after its discoverer, Lt. (later Major-General) H. Bower, fell into the hands of that officer, early in 1890, in Kuchar. Kuchar is one of the principle oases and settlements of Eastern Turkistan.—Introduction. The ms. was sold by Bower to the Bodleian Library in Oxford. Parts I-III of the Bower ms. concern medicine. The manuscript is incomplete.

Copies: CtY-M; DSG; MH-M; Sg.

Brabantinus, T.; *see* Thomas Brabantinus.

Brant, Sebastian: Flugblätter, 1492-1509. Twenty-two Broadsides. Strassburg, 1915. (Jahresgaben. Gesellschaft f. classische Literatur., v. 3).
Copies: CSmH; MdBW; MBM; MH-M; MiU.

Braunschweig, H.; *see* Brunschwig, H.

Breasted, J. H.; *see* Edwin Smith surgical papyrus.

Bright, Timothy, 1551?-1615: Treatise of Melancholie; Reproduced from the 1586 Edition. Ptd. by Thomas Vautrollier; With an Introduction by Hardin Craig. New York, Columbia University Press, 1940. XXII, facs. 12 p. l., 284 pp., 1 p. (Facsimile Text Society, Publication no. 50).
Copies: CSmH; CtY-M; DLC; DSG; MdBW; MBM; MiU; MnU; NNN; PPC.

Brisseau le fils, Michel: Traité de la cataracte et du glaucoma . . . Paris, Laurent d'Houry, 1709. 7 p.l., 260 p., 4 pl., 6 l., [Anvers, J. A. Buschmann, 1921]
Note: Reissued by a committee of Franco-Belgian ophthalmologists on the occasion of the inauguration of a memorial to Michel Brisseau at Tournai 25 Sept. 1921. Published on Sept. 21, 1921 from the press of J. A. Buschmann, Anvers, 1921. Edition limited to 200 copies, numbered 1-200 and 15 deluxe copies, no. I-XV.
Copy: DSG

British Museum; *see* Herbal, An; M., I; Mondino dei Luzzi.

[Brown, William]: The Lititz Pharmacopoeia [1778] (Pharmacopoeia simplicium et efficaciorum . . . Philadelphia, Styner and Cist, 1778). The Badger Pharmacist. #'s 22-25: 1-70 (Jun.-Dec.) 1938.
Note: The Lititz Pharmacopoeia (first American) derives its name from Lititz; a village founded by the Moravians in 1756 in what is now Lancaster County, Pa. It was written, presumably by Dr. William Brown, for the use of the military hospital of the Army of the U. S. A. The facsimile is accompanied by a translation and notations. Also reproduced in England, J. W.: The first century of the Philadelphia College of Pharmacy [1922].
Copies: DSG; MBM; NNN.

Browne, Sir Thomas, 1605-1682: Hydriotaphia, Urne-Buriall, or A Discourse of the Sepulchrall Urnes lately found in Norfolk. Together with the Garden of Cyrus, or the Quincunciall, Lozenge, or Net-work Plantation of the Ancients, Artificially, Naturally, Mystically Considered. With Sundry Observations. London, Hen. Browne, 1658. 8 ll., 202 pp., 3 ll. 8vo. [London, Percy Lund Humphries, 1927].
Note: This is a facsimile of the octavo edition of Browne's *Hydriotaphia*, 1658. The octavo edition of 1658 was followed in the same year by a second edition which appeared in quarto.
Copies: CtY-M; DLC; MdBW; MH-M; MiU; OClCM.

———: Religio medici . . . being a facsimile of the first edition published in 1642, with an introduction by W. A. Greenhill . . . London, Elliot Stock, 1883. xxxi, facsim. il., 190 pp., illus.

Note: "This book was handwritten about 1634 solely for Dr. Browne's own amusement and edification and without any idea of publication. There were several manuscript copies. Two of them came into the hands of a printer (unjustly named A. Crooke) who printed them both in 1642, whereupon Browne brought out his authorized edition in 1643. The 1883 facsimile reproduced the 190 page 'surreptitious' edition. The 159 page one is now usually regarded as the first. A line-for-line replica of the text of the 1643 edition was issued by the Clarendon Press in 1909." WWF
Copies: CaM-O; CtY-M; MBM; NNN; PPC.

Brugsch Papyrus (ca. 1300 B. C.): Der grosse medizinische Papyrus des Berliner Museums (Pap. Berl. 3038) in Facsimile und Umschrift mit Uebersetzung, Kommentar und Glossar. Herausg. von W. Wreszinski. Leipzig. J. C. Hinrichs, 1909. XXI, 111 pp. (Transcription), 24 facsimile plates. 113-142 (glossary).
Note: The above facsimile reproduction and translation forms v. 1 of the Medizin der alten Aegypter series. For more information *see*: Brugsch, H. K.: Notice raisonée d'un traité médical datant du xiv^me^ siècle avant notre ère et contenu dans un papyrus, hiératique du Musée royal (Département des Antiquités Égyptiennes) de Berlin. Leipzig, J. C. Hinrichs, 1863. 2 p. l., 20 pp.
Copies: CSt-L; CU-M; CtY-M; DSG; MdBW; MBM; NNN; Waller; Wellcome.

Brunn, W. von; *see* Stromayr, C.

Brunschwig, Hieronymus, ca. 1450–ca. 1512: The Book of Cirurgia, by Hieronymus Brunschwig. Strassburg, Johann Grüninger, 1497. With a study on Hieronymus Brunschwig and his work by Henry E. Sigerist. Milano, R. Lier and Co., 1923. 1 p. l., facsim. (272 pp. incl. illus., pl.) XVI 1 l.
Note: Facsimile reproduction of one of the copies of the 1st ed. enlarged by four new chapters, and the treatise on anatomy. For a full bibliographic description see K. Sudhoff: Deutsche medizinische Inkunabeln, pp. 49-61 (in Studien zur Geschichte der Medizin . . . Hft. 2/3).
Copies: CSmH; CSt-L; CtY-M; DLC; DSG; MdBW; MBM; MH-M; MnRM; MnU; NNN; O'M; PPC; Waller; Wellcome.

———: Das Buch der Cirurgia des Hieronymus Brunschwig. Strassburg, Johann Grüninger, 1497. [Facsimile-Ausgabe.] Begleit-Text von Gustav Klein. München, C. Kuhn, 1911. 2 p. l., 272 pp., 1 bl. l. xxxviii, 16 pl. (Alte Meister der Medizin und Naturkunde, hrsgb. von G. Klein, No. 3).
Copies: CSt-L; CU-M; CtY-M; DLC; DSG; ICJ; MdBW; MBM; MH-M; MiU; NNN; PPC; Waller; Wellcome.

Budjuhn, G.; *see* Artzney Buchlein.

Burkhard, G.; *see* Alte Meister der Medizin und Naturkunde.

Caius, John, 1510-1573: A Boke or Counseill against the Disease Called the Sweate (1552) . . . [Introduction] by Archibald Malloch . . . New York, Scholars' Facsimiles and Reprints, 1937. 1 l., xix, facsimile 39 ll., 1 l.

Note: Dr. Caius witnessed an epidemic of the sweating sickness at Shrewsbury in 1551 and published his book on the subject in 1552. The colophon on the verso of the second leaf shows that it was printed by Richard Grafton.
Copies: CSmH; CSt-L; CU-M; CtY-M; DLC; DSG; MdBW; MH-M; MnU; NNN; O'M; PPC; Waller.

California, University of, Publications, Egyptian Archaeology, v. 1; *see* Papyrus Hearst.

Canano, Giovanni Battista, 1515-1579: . . . Musculorum humani corporis picturata dissectio (Ferrara, 1541?). Facsimile edition, annotated by Harvey Cushing and Edward C. Streeter. Florence, R. Lier and Co., 1925. 47 [2] p., facsim. (p. [51]-[89] illus.) 91-98 p. 1 l. (Monumenta medica, v. 4.)
Copies: CSt-L; CU-M; CaM-O; CtY-M; DLC; DSG; MdBW; MBM; MH-M; MiU; MnU; NNN; PPC; Waller; Wellcome.

Cantimpratensis; *see* Thomas Brabantinus.

Canutus, Bishop of Arusiens; *see* Johannes Jacobi.

Capelluti; *see* Roland of Parma.

Cardenas, Juan de: Problemas secretos maravillosos de las Indias . . . Mejico, [Pedro Ocharte] 1591. Fasc. éd. Madrid, 1945. (3 ll.), (8 ll.), 246 ll., 1 l., (Colección de incunables Americanos siglo xvi, v. 9).
Copies: CSmH; CSt-L; DLC; MdBW; O'M; Waller.

von Carolsfeld, H. S.; *see* Alte Meister der Medizin und Naturkunde.

Carbonelli, G.; *see* Roland of Parma.

Castel of Helthe, the; *see* Elyot, Sir T.

Chalmers, Lionel: An Account of the Weather and Diseases of South-Carolina . . . London, Edward and Charles Dilly, 1776. 2 v.
Note: In 1948, Mead Johnson & Company published the section of this work dealing with pediatrics in facsimile as follows: "Of the disorders to which children are liable at this season" pp. 57-98 (from v. 1) and "Of the suffocating or catarrhal peripneumony in children" pp. 69-76, "Of nervous asthma or suffocatio stridula in children" pp. 76-80, "Of the hooping-cough" pp. 161-170 (from v. 2).
Copies: CSt-L; CtY-M; LNT-M; MdBW; MH-M; MnRM; NNN; OClCM; PPC.

Chicago, University of, Oriental Institute; *see* Edwin Smith Surgical Papyrus.

Christiern Pedersens Laegebog, Malmø, 1533: Udgivet i facsimile med indledning af Poul Hauberg. København, Levin & Munksgaard, 1933. 32 pp., 1 l., facsim. (4 p. l., lxxxviii blad).
Copies: DSG; Waller.

Christiana, University of; *see* Leonardo da Vinci.

Classici Italiani della medicina, I.; *see* Mondino dei Luzzi.

Clement von Gracz [pseud.]; *see* [Folz, Hans] 15th cent.

Clendening, L.; *see* Vesalius, A.

Clod-Hansen, A.; *see* Anatomie Mandchoue.

Clowes, William, 1540-1604: Profitable and Necessarie Booke of Observations . . . With introductions, general and medical, by DeWitt T. Starnes and Chauncey D. Leake. New York, Scholars' Facsimiles and Reprints, xxviii, 1 l., 2 ll., 229 pp., 3 pp. illus.
Note: Facsimile reprint of 1596 edition.
Copies: CSmH; CSt-L; CU-M; CaM-O; CtY-M; DLC; DSG; MdBW; MBM; MiU; MnU; NNN; O'M; PPC; Sg; St.B; Wellcome.

Cohen, B.; *see* Leeuwenhoek, A. V.

Copenhagen, Royal Library; *see* Anatomie Mandchoue.

Cordasco, F.; *see* Watt, R.

Cornell publications in the history of science; *see* Fabricius, H.

Corrigiensis, J. M.; *see* Johannes Mercurius Corrigiensis.

Corvisart; *see* Auenbrugger, L.

[Coste, Jean-François, 1741-]: Compendium pharmaceuticum, Militaribus Gallorum nosocomiis in orbe novo Boreali adscriptum. Newport, H. Barber, 1780. 16 pp. Badger Pharmacist #'s 27-30 (Dec.) 1940.
Note: Prepared for the French troops and published in Newport shortly after their arrival in 1780. This facsimile edition includes an English translation and is accompanied by an introductory essay and notes. A reduced facsimile is also included in: Lane, G. E.: Coste's *Compendium Pharmaceuticum*. Bull. Soc. Med. Hist. of Chicago 4: 214-220, 1930.
Copies: MBM; NNN.

Craig, H.; *see* Bright, T.

Cumston, C. G.; *see* Pictor, G.

Cures of the Diseased in Remote Regions; *see* Wateson, G.

Cushing, H.; *see* Arderne, J.; Canano, G. G.

Dance of Death, The: . . . Les Simulachres & Historiees Faces de la Mort: commonly called "The Dance of Death." Tr. and Ed. by Henry Green . . . With a sketch of Holbein's Life and Works, and some explanatory notes . . . Manchester and London, The Holbein-Society, 1869. XXX, 52 ll. (facsimile) pp. [105]-292. (The Holbein-Society's Facsimile Reprints, v. 1).
Note: Complete facsimile of the Lyons edition of 1538.
Copy: DSG.

——: Printed at Paris in 1490. A reproduction made from the copy in the Lessing J. Rosenwald collection, Library of Congress . . . [Washington, D. C., Rare Books Division of the Library of Congress, 1945]. [x], 1 l., 16 ll. illus.

Note: Introduction by William M. Ivins, Jr. Only six copies of the original book (Latin, 1490 edition) are in existence.

Copies: CSmH; DLC; DSG; MnRM; NNN.

Danielssen, D. C.; . . . Atlas de la Lèpre, par D. C. Danielssen et C. W. Boeck. Bergen en Norvège, 1847 . . . Edition commemorative du centenaire, Rio de Janeiro, 1946. [Ed. by H. C. de Souze-Arujo] 56 ll., fol. 24 pl.

Note: The original is in color. These plates are in black and white. Not a complete facsimile. Included since the plates are reproduced by a photographic printing process.

Copies: DSG; MnRM; Wellcome.

Darmstaedter, E.; *see* Ellenbog, U.

Deutsche Gesellschaft für Wissenschaft und Kunst; *see* Clement von Gracz.

Dioscorides, Pedanius of Anazarb: Codex Aniciae Julianae picturis illustratus, nunc Vindobonensis Med. Gr. 1, phototypice editus. Moderante Josepho de Karabacek . . . , praefati sunt Antonius de Premerstein, Carolus Wessely, Josephus Mantuani . . . Lugd. Batav., A. W. Sijthoff, 1906. 2 v. fol. (Codices Graeci et Latini photographice depicti duce Scatone de Vries, tome X.)

Copies: CSt-L; CtY-M; DSG; MdBW; MH-M; MiU; MnU; NNN; PPC; Wellcome.

——: De materia medica libri VII accedunt Nicandri et Evtecnii opuscula medica. Codex Constantinopolitanus saeculo X . . . nunc inter thesauros Pierpont Morgan bibliothecae asservatus . . . Lutetiae Parisiorum, 1935. 2 v. Facsimile.

Copies: MdBW; MiU; MnU; NNN.

Dioscurides; *see* Dioscorides.

Documents scientifiques du xv^{e} siècle; *see* Mondino dei Luzzi.

Douglas, G.; *see* Steno, N.

Drake, Daniel, 1785-1852: Practical Essays on Medical Education and the Medical Profession in the United States; with an introduction by David A. Tucker, Jr. Baltimore, The Johns Hopkins Press, 1952. XVI, 104 p.

Du Laurens, André, 1558-1609: . . . A Discourse of the Preservation of the Sight: of Melancholike Diseases; of Rheumes, and of Old Age by M. Andreas Laurentius, tr. by Richard Surphlet, 1599, with an introduction by Sanford V. Larkey. [London] published for the Shakespeare Association by Humphrey Milford, Oxford University Press, 1938. xxv, 8 p. l., 194 pp. (Shakespeare association facsimiles no. 15).

Note: "The purpose of this facsimile edition of the four treatises of André

Du Laurens, as translated into English by Richard Surphlet is to give readers of Elizabethan literature some understanding of the medical views prevalent in Shakespeare's time." *From the Introduction.*

Copies: CSmH; CSt-L; CtY-M; DLC; DSG; MdBW; MBM; MiU; MnU; NNN; PPC; Sg; Wellcome.

Dürer, A.; *see* Ulsenius, T.

Duval, M.; *see* Leonardo da Vinci.

Early Science in Oxford; *see* Gunther, R. T.

Ebbell, B.; *see* Papyrus Ebers.

Ebers, Georg; *see* Papyrus Ebers.

Edwin Smith Surgical Papyrus, the: The Edwin Smith Surgical Papyrus. Published in Facsimile and Hieroglyphic Transliteration, with Translation and Commentary . . . by James Henry Breasted. Text in 1 vol. with 8 plates; plus an atlas of 22 full page facsimiles each faced by transcription. Chicago, University of Chicago Press, 1930. 2 v. (The University of Chicago, Oriental Institute Publications, v. 3.)

Note: "While the copy of the document which has come down to us dates from the Seventeenth Century B. C., the original author's first manuscript was produced at least a thousand years earlier, . . ." J. H. Breasted.

Copies: CSt-L; CU-M; CaM-O; CtY-M; DLC; DSG; ICJ; LNT-M; MdBW; MBM; MiU; MnRM; MnU; NNN; OClCM; PPC; Sg; Wellcome.

Ellenbog, Ulrich, -1499: . . . Von den grifftigen Besen Tempffen und Reuchen . . . eine Gewerbe-hygienische Schrift des XV. Jahrhunderts . . . München, Verlag der Münchener Drucke, 1927. [xx], 4 ll. facsim. (Münchener Beiträge zur Geschichte und Literatur der Naturwissenschaften und Medizin . . . Herausgegeben von E. Darmstaedter . . . 2. Sonderheft).

Note: Includes a preliminary account on Ellenbog's life and work by Friedrich Zoepfl. Ellenbog wrote the earliest treatise on industrial hygiene in 1473. It was first published in 1524 and the facsimile was made from this edition.

Copies: CSt-L; CtY-M; DLC; MdBW; MiU; NNN; PPC; Waller.

Elyot, Sir Thomas, 1490?-1546: The castel of Helthe (1541) . . . Together with the Title-page and Preface of the Edition of 1539. With an introduction by Samuel A. Tannenbaum. New York, Scholars' Facsimiles and Reprints, 1937. xi, facsim. 3 unnumbered ll., 94 ll. (some misnumbered).

Note: Reproduced from a copy owned by the late Dr. A. S. W. Rosenbach. In addition the title page and preface of 1539 edition are reproduced from a copy in the Henry E. Huntington Library.

Copies: CSmH; CSt-L; CU-M; CaM-O; CtY-M; DLC; DSG; ICJ; MdBW; MBM; MiU; MnU; NNN; O'M; Wellcome.

Emmart, E. W.; *see* Badianus manuscript.

Fabricius, Hieronymus *ab Aquapendente*, ca. 1533-1619. The Embryological Treatises of Hieronymus Fabricius of Aquapendente: The Formation of the Egg and of the Chick. De formatione ovi et pulli. The Formed Fetus. De formato foetu. A facsimile ed., with an introduction, a translation, and a commentary by Howard B. Adelmann . . . Ithaca, New York, Cornell University Press, 1942. xxiii, 376 pp., [2], facsims. (pp. [379]-645), 1 l., 649-883 pp. incl. front. (port.) illus., plates (part double) (Half-title: Cornell publications in the history of science).
Copies: CSt-L; CU-M; CaM-O; CtY-M; DLC; DSG; ICJ; LNT-M; MdBW; MBM; MiU; MnRM; MnU; NNN; OClCM; O'M; PPC; Sg; Wellcome.

——: De venarum ostiolis, 1603, of Hieronymus Fabricius . . . Facsimile ed., with Introduction, Translation, and Notes by K. J. Franklin . . . Springfield, Ill., Baltimore, Md., Charles C Thomas, 1933. 5 p. l., 65 pp., 1 l. facsim. (pp. 69-93) 95-98 pp. front. (port.), illus. (incl. facsim. plates.)
Note: "The third book in the series publ. by the History of science society with the aid of the funds contributed by the Carnegie corporation."
Copies: CSt-L; CU-M; CaM-O; CtY-M; DLC; DSG; LNT-M; MdBW; MBM; MiU; MnRM; MnU; NNN; OClCM; O'M; PPC; Sg; St.B; Waller; Wellcome.

Facsimile Text Society, Publications; *see* Bright, T.

Fairfax; *see* Arcana Fairfaxiana Manuscripta.

Farfán, Augustín: . . . Tractado Breve de Medicina. Mejico, 1592 Facs. ed. Madrid Ediciones Cultura Hispanica, 1944. (3) ll., 353 ll., (3) ll., (1) l., illus. 4°. (Coleccion de incunables Americanos siglo xvi, v. 10.)
Copies: CSmH; CSt-L; CtY-M; DSG; MdBW; MH-M; NNN; O'M; PPC; Waller.

Fasciculo di medicina; *see* Ketham, J. de.

Ferckel, C.; *see* Thomas Brabantinus.

Flexner, A.; *see* Morgan, J.

[Folz, Hans] 15th cent.: Von allen paden dye von natur hayss sint. Brün, 1495. 18 ll. [Facs. Brün, Rudolph M. Rohrer, 1928.]
Note: Reproduced in facsimile from the only known copy, the one in the British Museum. Issued under the auspices of the Deutsche Gesellschaft für Wissenschaft und Kunst in Brünn. Explanatory leaflet at end by Moriz Grolig.
Copies: DLC; MBM; Waller.

——: Dises puchlen saget uns von allen paden die vo naturheiszsein. (Nuremberg, ca. 1480.) Strassburg, Heitz, 1896. 8 ll.
Copies: CSmH; DLC; MH-M.

Fonahn, A.; *see* Leonardo da Vinci.

Forbes; *see* Auenbrugger, L.

Franklin, Benjamin, 1706-1790: A Letter on Catheters, Written by Benjamin Franklin to his brother John, Phila., Dec. 8, 1752. Now in the Possession of the Library of the New York Academy of Medicine . . . With a Comment by Edward L. Keys . . . Fulton, New York, Morrill Press, 1934. 6 ll. fol. Letter reproduced in facsimile on 2 folio pages.
Copies: CSmH; CU-M; CtY-M; DLC; DSG; ICJ; MdBW; MH-M; MnRM; NNN; PPC.

Franklin, K. J.; *see* Fabricius, H.; Lower, R.

Freimann, A.; *see* Maimonides.

Freytag, G.; *see* Schwestermiller, C.

Fuchs, Leonhardt, 1501-1566: New Kreüterbuch . . . Basel, Isingrin, 1543. [Leipzig, Koehler, 1938] folio 854 pp., illus. Anhang: Leonhart Fuchs und sein New Kreuterbuch (1543) von Prof. Dr. Heinrich Marzell. Leipzig, Koehler, 1938. 80 pp. 1 l.
Note: Appendix includes a bibliography of the editions of the "Kräuterbuch" and a series of indexes to the plants mentioned and references.
Copies: DLC; MnU; NNN.

———: Tabula oculorum morbos comprehendens, 1538. A facsimile with note by C. D. O'Malley. Palo Alto, 1949. Folio.
Note: This large fugitive sheet (25 x 16 inches folded) is reproduced from the only known copy, in the Lane Medical Library.
Copies: CSt-L; CU-M; CtY-M; DSG; MnRM; O'M; Sg; Waller.

Galen: Miniaturen der lateinischen Galenos Handschrift der Kgl. Oeffentl. Bibliothek in Dresden Db. 92-93 in phototypischer Reproduktion. Einleitung und Beschreibung von E. C. van Leersum und W. Martin. Leiden, A. W. Sijthoff's Uitgevers-Mij., 1910. 4 p. l., XXXVII, 21 facsimile plates, 3 in color. folio.
Note: The most beautiful and important of the Galenic manuscripts is here reproduced in part. It was originally prepared in the second half of the 15th century.
Copy: DSG

———: . . . De temperamentis, et de inaequali intemperie, libri tres, Thoma Linacro Anglo interprete . . . Cantabrigiam, per Joannem Siberch, 1521. Reproduced in Exact Facsimile with an Introduction by Joseph Frank Payne . . . and a Portrait of Thomas Linacre . . . [Cambridge], University of Cambridge, 1881. 48 pp. and frontispiece. Facsimile of 82 l.
Note: This edition limited to 250 copies. Siberch was the first Cambridge printer.
Copies: CSmH; CaM-O; CtY-M; DLC; DSG; ICJ; MdBW; MBM; MiU; MnU; NNN; PPC; Sg; Waller; Wellcome.

Galvanus, Aloysius: De viribus electricitatis immotu musculari. Commentarius cum Johannis Aldini, dissertatione et motis, Accesserunt Epistolae ad animalis

electricitatis theoriam pertinentes . . . Mutinae, Societas typographica, 1792. [Berlin, Junk, 1925] xxvi, 80 pp., 3 tables.
Copy: DSG.

Geisberg, M.; *see* Vesalius, A.

Gifford, George: . . . A Dialogue concerning Witches and Witchcraftes, 1593 . . . With an Introduction by Beatrice White. Published for the Shakespeare Association by Humphrey Milford, 1931. x, and facs. (96 unn. pp) 1 l. Shakespeare Association Facsimiles no. 1.
Copies: CSmH; CtY-M; DLC; DSG; MdBW; MiU; MnU.

Gilbert, William: De Magnete, magneticisque corporibus, et de magno magnete tellure; physiologia nova, plurimis & argumentis, & experimentis demonstrata . . . Londini, Petrus Short, 1600. facsim., 8 pl., 240 pp., illus. folio.
Note: This volume was reproduced in facsimile by photozincographic reproduction in 1892. It is known as "The Berlin facsimile Folio of 1892."
Copies: CtY-M; MnU; Waller; Wellcome.

Gilinus, Conradinus: De morbo quem Gallicum nuncupant, Ferrara, 1497. In: Sudhoff, Karl: The Earliest Printed Literature on Syphilis . . . Fac. pp. 251-260. (q. v.)
Copies: CSmH; CU-M; CaM-O; DLC; DSG; MdBW; MBM; MH-M; MiU; MnRM; NNN; OClCM; PPC; Waller; Wellcome.

Gillies, H. C.; *see* Regimen sanitatis.

Gotfredsen, E.; *see* Steno, N.

Green, Henry; *see* Dance of Death, The.

Greenhill, W. A.; *see* Browne, Sir Thomas.

Griffith, F. Ll.; *see* Kahun Medical Papyrus.

Grolig, Moriz; *see* (Clement von Gracz).

Grünpeck, Joseph d. ca. 1532: Ein hübscher Tractat von dem Ursprung des Bösen Franzos, Augsburg, December, 1496. In: Sudhoff, Karl: The Earliest Printed Literature on Syphilis . . . Fac. pp. 69-116. (q. v.)
Copies: CSmH; CU-M; CaM-O; CtY-M; DLC; DSG; MdBW; MBM; MH-M; MiU; MnRM; NNN; OClCM; PPC; Waller; Wellcome.

———: Tractatus de pestilentiali scorra sive mala de Franzos, Augsburg, November 1496. In: Sudhoff, Karl: The Earliest Printed Literature on Syphilis . . . Fac. pp. 23-68. (q. v.)
Copies: CSmH; CU-M; CaM-O; CtYM; DLC; DSG; MdBW; MBM; MH-M; MiU; MnRM; NNN; OClCM; PPC; Waller; Wellcome.

Günther, S.; *see* Alte Meister der Medizin und Naturkunde.

Guido de Vigevano; *see* Mondino dei Luzzi.

Gunther, R. T.; *see* Apuleius Barbarus; Hooke, R.

Gunther, R. T., ed.: Early Science in Oxford. [Oxford, Printed for subscribers, 1921-1945] 14 v.
Note: For medical facsimiles in this series *see*: Hooke, Robert; Lower, Richard.

Harvey, William, 1578-1657: An Anatomical Dissertation upon the Movement of the Heart and Blood in Animals, Being a Statement of the Discovery of the Circulation of the Blood . . . Privately reproduced in facsimile from the original edition printed at Franckfort-on-Main in the year 1628, with a translation and memoir. Canterbury, 1894. x, 72 [2] 91 pp. front., plates. Tr. by Robert Willis.
Note: The Robert Willis translation was made for the Sydenham Society in 1847. Reprinted in London in 1889, in Canterbury in 1894, and in Everyman's Library in 1907.
Copies: CStL; CU-M; CaM-O; CtY-M; DLC; DSG; ICJ; MdBW; MBM; MiU; MnU; NNN; OClCM; PPC; Sg; St.B; Waller; Wellcome.

———: . . . Étude anatomique du mouvement du coeur et du sang chez les animaux. Aperçu historique et traduction française par Charles Laubry . . . Paris, G. Doin et Cie, 1950. 224 pp. 4°.
Note: Includes preliminary material, an historical summary of the discovery of the circulation of the blood, a facsimile of the 1628 edition of "De motu cordis," and a French translation of "De motu cordis."
Copies: CtY-M; DSG; MdBW; Waller.

———: Exercitatio anatomica de motu cordis et sanguinis in animalibus . . . Francofurti, Guilielmi Fitzeri, 1628. [Florence, R. Lier and Co., 1928]. 72 pp., 1 l., 2 pl. [Monumenta medica . . . vol. 5].
Note: Besides a limited number of copies for the trade, 250 copies of the publication were printed for the College of Physicians of Philadelphia.
Copies: CSt-L; CaM-O; CtY-M; DSG; LNT-M; MdBW; MBM; MiU; MnRM; MnU; NNN; OClCM; O'M; PPC; St.B; Waller; Wellcome.

———: Exercitatio anatomica de motu cordis et sanguinis in animalibus . . . 1628. Reproduced in facsimile in: Izquierdo, J. J.: Harvey, iniciador del método experimental . . . Mexico, 1936. pp. 127-200.
Note: Dr. Izquierdo also includes a Spanish translation (the first) of the 1628 "De motu cordis."
Copies: CSt-L; CU-M; CtY-M; DSG; MdBW; NNN; St.B; Waller; Wellcome.

———: Exercitatio anatomica de motu cordis et sanguinis in animalibus. With an English translation and annotations by Chauncey D. Leake. Tercentennial edition. Springfield, Ill., Baltimore, Md. Charles C Thomas, 1928. 6 pl., facsim. (72 pp., [2] pp.)
Note: Includes facsimile of original Latin edition. 1628.
Copies: CSt-L; CU-M; CaM-O; CtY-M; DLC; DSG; ICJ; LNT-M; MdBW; MBM; MiU; MnU; NNN; OClCM; O'M; PPC; St.B; Waller; Wellcome.

[Harvey, William]: [A facsimile reproduction of the Diploma of Doctor of Medicine granted by the University of Padua to William Harvey, 1602] [London, Royal College of Physicians, 1908]. Facs. 7 ll. in color in a facsimile tooled leather binding.

Note: There is a companion piece as follows: [Payne, Joseph Franks] Notes to accompany a facsimile reproduction of the Diploma of Doctor of Medicine granted by the University of Padua to William Harvey, 1602, with a translation by J. F. Payne. London. Chiswick Press, Privately printed [for] the Royal College of Physicians, 1908. 18 pp.

Copies: CSt-L; CtY-M; DSG; MdBW; NNN; PPC; Sg; St.B.

Harvey, William: Prelectiones anatomiae universalis [1616] . . . Ed. with an autotype reproduction of the original by a Committee of the Royal College of Physicians of London. London, J. and A. Churchill, 1886. viii, Complete reproduction of the ms. 98 ll. with transcription.

Note: The ms. reproduced in facsimile is in Harvey's handwriting. The title page bears his signature "per me Gulielmum Harveium" and date A. D. 1616. The ms. with another vol. also in Harvey's handwriting formed part of the collection of Sir Hans Sloane which became the property of the nation (British Museum) in 1753. The object of this publication was to preserve and make public the original notes of the lectures in which Harvey in 1616 set forth for the first time his discovery of the circulation.

Copies: CSt-L; CU-M; CaM-O; CtY-M; DSG; ICJ; LNT-M; MdBW; MBM; MiU; MnRM; NNN; OClCM; PPC; Sg; St.B; Wellcome.

Hauberg, P.; *see* Christiern Pedersens Laegebog.

Hearst Medical Papyrus; *see* London Medical Papyrus and Papyrus Hearst.

Heitz, Paul, ed.: Pestblätter des XV. Jahrhunderts, mit einleitenden Text von W. L. Schreiber. Strassburg, J. H. E. Heitz, 1901. 2 p. l., 18 pp., 1 l., illus., 41 pl. on 40 ll.

Copies: CSmH; CtY-M; DLC; ICJ; MH-M; OClCM; Waller.

van Helmont, Joan Baptista; Dageraad, ofte Nieuwe Opkomst der Geneeskonst, in Verborgen grond-regulen der Nature . . . Rotterdam, Joannes Naeranus, 1660. 10 p. l., 401 pp.

Note: This facsimile edition of van Helmont's "Daybreak" was issued in 1944 on the occasion of the 300th anniversary of his death under the auspices of the Royal Dutch Academy of Sciences, Literature, and Fine Arts of Belgium and with the cooperation of the Académie Royale de Médecine de Belgique.

Copy: DSG.

Henry E. Huntington Library; *see* Clowes, William; Elyot, Sir Thomas; Herbal, An.

Herbal, An [1525]: Edited and Transcribed into Modern English with an Introduction by Sanford V. Larkey . . . and Thomas Pyles . . . New York, Scholars' Facsimiles and Reprints, 1941. XXIV, il., facs. [72 pp.], 86 pp. (Also issued under imprint: New York, Botanical Gardens, 1941).

Note: "Banke's Herbal of 1525 . . . was the first book devoted exclusively to herbs to be printed in England. The only known copies of it are one in the British Museum, here reproduced in facsimile, and one in the Henry E. Huntington Library, San Marino, California." Introduction.
Copies: CSmH; CSt-L; CU-M; CtY-M; DLC; DSG; ICJ; MdBW; MiU; MnU; NNN; O'M; PPC.

Hoernle, A. E. R.; *see* Bower manuscript.

Holbein, Hans, the younger, 1495-1543; *see* Dance of Death, The.

Holbein-Society; *see* Dance of Death, The.

Holl, M.; *see* Vesalius, A.

Hollister Pharmaceutical Library; *see* Pharmacopoeia Augustana; Pharmacopoeia Londinensis.

Hooke, Robert, 1635-1703: Micrographia: or Some Physiological Descriptions of Minute Bodies Made by Magnifying Glasses, with Observations and Inquiries thereupon . . . London, Jo. Martyn and Ja. Allestry, 1665. 18 p. l., 246 pp., [10] pp., 38 pl. (part. fold.)
Note: Reproduced in facsimile in Gunther, R. T., ed.: Early Science in Oxford v. 13, the Life and Work of Robert Hooke, part 5, Micrographia, 1665. Oxford, Printed for the subscribers, 1938.
Copies: CSmH; CaM-O; CtY-M; DLC; DSG; MdBW; MBM; MH-M; MiU; MnRM; MnU; PPC; Sg; Waller; Wellcome.

Hopstock, H.; *see* Leonardo da Vinci.

Hortus sanitatis deutsch [Minor] Mainz, Peter Schöffer, 1485. [359 pp.]. Followed by Schreiber, W. L.: Nachtrag, Die Kräuterbücher des xv. & xvi. Jahrhunderts. München, Verlag der Münchener Drucke, 1924. LXII, 1 l.
Note: This facsimile edition was issued in Munich in the fall of 1924 in 300 copies for the Verlag der Münchner Drucke zu München.
Copies: CSt-L; CtY-M; DLC; DSG; MdBW; NNN; PPC; Waller; Wellcome.

Hult, O. T.; *see* Olai, Benedictus; Rudbeck, Olof.

Hunger, F. W. T.; *see* Apuleius Barbaras.

Husemann, T.; *see* Pharmacopoeia Augustana.

Ibn Rushd (Averroes), 1126-1198; . . . Quitab el Culiat por Abu El Ualid Mohamed Ben Ahmed Ben Roxd, El Andalusi (Averroes). Boscá, Artes Gráficas; Marrelcos, Larache, 1939. (Publicaciónes del Instituto General Franco, Para la Investigación Hispano-Árabe. Sección Primera, Manuscritos Árabes).
Note: General Franco of Spain presented copies free of charge to libraries and institutions of the Near East.
Copy: Dr. S. I. Haddad, Beirut, Lebanon.

Instituto General Franco; *see* Ibn Rushd.

Ivins, W. M., Jr.; *see* Dance of Death, The.

Izquierdo, J. J.; *see* Harvey, W.

Jackson, B. D.; *see* Turner, William.

Jacobi, Johannes; *see* Johannes Jacobi.

Jasme, Jean; *see* Johannes Jacobi.

Jean Jasme; *see* Johannes Jacobi.

Jenner, Edward, 1749-1823: An Inquiry into the Causes and Effects of the Variolae Vaccinae, a Disease Discovered in some of the Western Counties of England, particularly Gloucestershire and Known by the Name of the Cow Pox . . . London, Printed for the author, by S. Low, and sold by Low, 1798. 2 p. l., iii-iv, 75 pp. 2 l. 4 col. pl. [Milan, R. Lier & Co., 1923.] Edition ltd. to 500 cops.
Note: Also publ. in facs. in 1949 in a limited edition, ed. by Nolie Mumey of Denver, Colorado. [Denver, Range Press, 1949].
Copies: CSmH; CSt-L; CU-M; CaM-O; CtY-M; DLC; DSG; ICJ; MdBW; MBM; MiU; MnRM; MnU; NNN; O'M; PPC; Waller; Wellcome.

Jessen, Karl Friedrich Wilhelm, 1821-1889: Botanik der Gegenwart und Vorzeit in culturhistorischer Entwickelung. Ein Beitrag zur Geschichte der Abendländischen Völker . . . (1864). Waltham, Mass., Chronica Botanica Co., 1948. 2 p. l., xxii, 495 pp.
Note: "Of considerable interest for the history of medicine." George Rosen. Half title: Pallas: A collection of offset reprints of out-of-print and classic scientific works, ed. by Frans Verdoorn, v. 1. Reproduced by Offset.
Copy: NNN.

Jobst de Necker; *see* Vesalius, A.

Johannes Jacobi: La regime de l'epidemie et remède contrei celle. Lyon. (about) 1476. Reproduced in Facsimile in Klebs et Droz. Remèdes contre la Peste . . . Paris, 1925. (q. v.)
Copies: CSmH; CaM-O; CtY-M; DLC; DSG; MdBW; MBM; MH-M; NNN; PPC; Waller; Wellcome.

[Johannes Jacobi]: A Litil Boke the Whiche Traytied and Reherced many Gode Thinges Necessaries for the . . . Pestilence . . . Made by the . . . Bisshop of Arusiens . . . London, [1485]. Reproduced in facsimile from the copy in the John Rylands Library with an introduction by Guthrie Vine. Manchester, The University Press, London, Bernard Quaritch, and Sherratt and Hughes, 1910, xxxvi, 1 l., facsim. 9 ll.
Note: According to Cowlishaw, L., Some early printed books . . . (Med. J. Australia 2:77-81 [July 17] 1926) the printer was William de Macklinia, one of the first two printers in London (Caxton, the first English printer, estab-

lished his press at Westminster), the other being John Lettou. This was the first medical book printed in English. Its authorship was ascribed to the Bishop of Vasteras in Sweden (Canutus, Bishop of Arusiens) who, being exiled, came to Montpellier and studied medicine. Sudhoff has shown the author to be the papal physician Johannes Jacobi of Montpellier.

Copies: CU-M; CaM-O; CtY-M; DLC; DSG; ICJ; MBM; MiU; MnU; NNN; Sg; St.B; Waller; Wellcome.

———: Remède très utile contre la fièvre pestilencieuse. Paris, Pierre Le Dru (at the close of the 15th century). Reproduced in facsimile in Klebs and Droz. Remèdes contre la peste . . . Paris, 1925. (q. v.)

Copies: CSmH; CaM-O; DLC; DSG; MdBW; MBM; MH-M; NNN; PPC; Waller.

Johannes Mercurius Corrigiensis Contra pestem [Rome, 1499-1505]: Reproduced in McDaniel, W. B., 2d: An hermetic plague-tract by Johannes Mercurius Corrigiensis; text, translation, and bio-bibliography of the author, Trans. & Stud. Coll. Phys. Phila. 4th ser. 9: 96-111; 217-225, 1941-1942. (Facsimile and translation on facing pages.)

Copy: PPC.

John Rylands Library, Manchester; *see* Johannes Jacobi.

Johns Hopkins University. Institute of the History of Medicine; *see* Morgan, J.; Thacher, Thomas.

Josselyn, John: New-Englands Rarities Discovered: in Birds, Beasts, Fishes, Serpents, and Plants of that Country. Together with The Physical and Chyrurgical Remedies Wherewith the Natives Constantly use to Cure their Distempers, Wounds and Sores . . . London: G. Widdowes, 1672. 2 ll., 114 pp., Facsim. ed. publ. by W. Junk, 1926.

Copies: NNN; Wellcome.

Jost de Negker; *see* Vesalius, A.

Judges, A. v.; *see* M., I.

Kahun Medical Papyrus: The Petrie Papyri. Hieratic Papyri from Kahun and Gurob. Ed. by F. Ll. Griffith. 1898.

Note: Plates 5 and 6 are facsimiles of the medical papyrus. These consist of gynecological instructions and prescriptions. (Published as a hieroglyphic transcript with a translation by F. Ll. Griffith.)

Copies: CtY-M; MH-M; MiU; Wellcome.

Karabacek, J. de; *see* Dioscorides.

Keith, Sir Arthur, 1866- : Menders of the Maimed: The Anatomical and Physiological Principles Underlying the Treatment of Injuries to Muscles, Nerves, Bones, and Joints . . . [Originally published in 1919 by Joint Committee of

Henry Frowde and Hodder and Stoughton, London.] Philadelphia, J. B. Lippincott and Company [by arrangement with Oxford University Press, 1952]. XII, 335 p., illus.
Note: This is a limited edition reproduced in photographic facsimile.

Ketham, Johannes de, 15th cent.: The Fasciculo di medicina, Venice, 1493, With an Introduction by Charles Singer . . . Florence, R. Lier and Co., 1925. 2 v. folio illus., woodcuts (1 col.) (Monumenta medica, v. 2.) Pt. 1: Description, editions, art and language of the fasciculo, anatomy of Mundinus, illustrative figures and explanatory text. Pt. 2: Facsimile.
Copies: CSmH; CSt-L; CU-M; CtY-M; DLC; DSG; MdBW; MBM; MH-M; MiU; MnRM; MnU; NNN; OClCM; O'M; PPC; Waller; Wellcome.

———: Der Fasciculus Medicinae des Johannes de Ketham, Alemannus. Facsimile des Venetianer Erstdruckes von 1491; mit einer historischen Einführung, hrsg. von Karl Sudhoff. Milan, R. Lier & Co., 1923. 18 unnumbered pages, 37-57 pp., 13 pl. fol. (Monumenta medica, v. 1.)
Copies: CSmH; CU-M; DSG; ICJ; MdBW; MBM; PPC; Waller; Wellcome.

———: The Fasciculus medicinae of Johannes de Ketham, Alemanus. Facsimile of the First (Venetian) Edition of 1491, with Introduction by Karl Sudhoff; Translated and Adapted by Charles Singer. With 13 plates. Milan, R. Lier and Co., 1924. 2 p. l., [29 pp.], [37]-55 pp., [1 p.], 2 ll., illus., xiii mounted pl. (part col., 1 fold.) (Monumenta medica . . . v. 1.)
Copies: CSmH; CaM-O; CtY-M; DLC; DSG; ICJ; MdBW; MBM; MiU; MnRM; MnU; NNN; OClCM; PPC; Sg; Waller; Wellcome.

Keyes, E. L.; *see* Franklin, B.

Keys, J.; *see* Caius, J.

Kilpatrick, James: A Full and Clear Reply to Doct. Thomas Dale. Wherein the real Impropriety of Blistering with Cantharides in the first *Fever* of the Small-Pox is *plainly demonstrated* . . . Charles-town, Printed by Peter Timothy, 1739. 2 p. l., 48 pp., 1 l. (One hundred and twenty-five copies reproduced by Edwards Brothers, Ann Arbor, Michigan for Joseph Ioor Waring, June, 1938.)
Note: "The smallpox epidemic of 1738 in Charlestown, South Carolina gave rise to a controversy between two of the local practitioners, Thomas Dale and James Kilpatrick. In the fashion of the day they aired their medical quarrel by publishing pamphlets defending their ideas and practices . . . the one known survivor of the group, a pamphlet belonging to the British Museum, has been reproduced in facsimile." Foreword.
Copies: ICU; MiU.

Klebs, Arnold Carl, and Sudhoff, Karl, eds.: Die ersten gedruckten Pestschriften. Arnold C. Klebs: Geschichtliche und bibliographische Untersuchungen. Karl Sudhoff: Der Ulmer Stadtarzt und Schriftsteller Heinrich Steinhöwel. Mit

Abbildungen im Text, 24 Tafeln und Faksimile von Steinhöwel's Büchlein der Pestilenz, Ulm, 1473. München, Münchner Drucke, 1926. 4 p. l., 222 pp., facs. 63 ll.

Note: Contains, besides miscellaneous leaves, complete facsimile of the first edition of Heinrich Steinhöwel's Buechlin der Ordnung . . . dieser grúsenlichen Kranckheit. Ulm Johanne Zaim von Rútlingen, 1473.

Copies: CSmH; CSt-L; CtY-M; DSG; MdBW; MnU; NNN; OClCM; PPC; Sg; Waller.

Klebs, A. C. and Droz, E.: Remèdes contre la peste, fac-similés, notes et liste bibliographique des incunables sur la peste . . . Paris, E. Droz; E. Nourry, 1925. 95 pp., 1 p. (Documents scientifiques du XV^e^ siècle, Tome 1).

Note: Includes the following facsimiles: (1) Le régime de l'épidimie et remède contre icelle de Jean Jasme [Johannes Jacobi] 1357. Reproduced from the 1476 printed edition of Guillaume Le Roy, à Lyon. (2) and (3) Remède très utile contre fièvre pestilencieuse. By Johannes Jacobi. Reproduced from two incunables printed probably at Paris by Pierre Le Dru (2) and Antoine Caillaut (3) at the end of the 15th century. (4) Le régime contre épidimie by Thomas Le Forestier. Rouen, Jacques Le Forestier, 21 Oct. 1495. T. p. and colophon reproduced only. (5) Régime contre la pestilence par les médicins de Bâle. Lyon, Claude Nourry (after 1519). T. p. and colophon p. only.

Note: Dr. Klebs' list of 130 editions of incunabula about the plague follows. This edition ltd. to 500 copies.

Copies: CSmH; CaM-O; CtY-M; DLC; DSG; MdBW; MBM; MH-M; MnU; NNN; PPC; Sg; Waller; Wellcome.

Klebs, Arnold Carl: Remedies Against the Plague, the Earliest French Tracts Printed in the Fifteenth Century. Facsimiles, notes, and list of all the incunabula on plague. Paris, [E. Droz], 1925. 95 pp. [1p] (Scientific documents of the XV century, v. 1).

Note: Same contents as Remèdes contre la Peste save that bibliographical notes and text of commentary are in English.

Copies: CSmH; CU-M; DSG; MdBW; MnU; NNN; PPC; Waller.

Klein, G.; *see* Alte Meister der Medizin und Naturkunde; *see* Brunschwig, H.; Roeslin, E.

Knutsson, Bengt; *see* Johannes Jacobi.

Kremers, E.; *see* Pharmacopoeia Augustana.

Laennec, René-Théophile-Hyacinthe, 1781-1826: Laennec, 1781-1826, documents inédits. Paris, Masson & Cie, 1926. 41 pp. [3 pp.] port. facs. of letters and lecture notes.

Copies: CaMO; CtY-M; DSG; MdBW; MBM; MH-M; PPC; Wellcome.

———: Propositions sur la doctrine d'Hippocrate, relativement à la médecine-pratique, Présentées et soutenues à l'Ecole de Médecine de Paris, le 22 Prairial an xii . . . Paris, De L'Imprimerie de Didot Jeune, 1804. [Paris, 1923] 39 pp. (and 5 pp. notes in ms. plus 5 sheets of notes in ms.)

Note: This is a facsimile edition of Laennec's copy of his own thesis. It contains annotations in the author's handwriting as well as some of his manuscript notes. Even the binding is in facsimile and rubbed to look 120 years old. Reproduced in Paris on Oct. 1, 1923 under the sponsorship of Maurice Letulle.

Copies: CaM-O; DSG; MdBW; MBM; MnRM; NNN; OClCM; PPC; Waller; Wellcome.

———: Traité de l'auscultation médiate et des maladies des poumons et du coeur. Réproduction en facsimile de la *2.* éd. (1826). Paris, Masson et Cie, 1927. *2* v. illus.

Note: Published with the assistance of the Committee for the Centenary of Laennec. The preface to the first edition (1819) has also been reproduced.

Copies: MnU; NNN; OClCM.

Lambert, S. W.; *see* Vesalius, A.

Lane, J. E.; *see* Bonomo, G. C.

Lane Medical Library; *see* Fuchs, L.

Larkey, S. V.; *see* Du Laurens, A.; Herbal, An; Turner, W.

Laubry, Charles; *see* Harvey, William.

Laurentius, M. A.; *see* Du Laurens, A.

Leake, C. D.; *see* Clowes, W.; Harvey, W.

Leersum, E. C. van; *see* Galen.

Leeuwenhoek, Anthony van, 1632-1723: The Leeuwenhoek Letter; being a Photographic Copy of the folio Letter of the 9th October, 1676 sent by Antony van Leeuwenhoek to Henry Oldenburg, . . . wherein the Reality of the Domain of Bacteria is revealed in the first recorded Description of these tiny Creatures . . . Baltimore, [Society of American Bacteriologists], 1932. Port., 2 ll., facs. 9 ll.

Note: Introduction by Barnett Cohen. Issued in a ltd. ed. of 30 copies.

Copies: CtY-M; DLC; DSG; MdBW; PPC; St.B; Waller.

———: The Leeuwenhoek Letter. A photographic copy of the letter of the 9th of October, 1676 sent by Antony van Leeuwenhoek to Henry Oldenburg, Secretary of the Royal Society of London; and a translation into English by Barnett Cohen . . . Baltimore, Society of American Bacteriologists, 1937. 46 pp. folio (facs. is 9 ll.).

Note: Translator's notes pp. 5-8 — The original ms. is still preserved by the Royal Society.

Copies: CtY-M; DSG; PPC.

Leonardo da Vinci, 1452-1519: Feuillets inédits, reproduits d'après les originaux conservés à la Bibliothèque du Château de Windsor. Paris, E. Rouveyre, 1901. 22 v.

Note: "This edition was issued from negatives made at the expense of Sabachnikoff. They were left with the publisher in good confidence and were published by Rouveyre without Sabachnikoff's permission." Kate Steinitz.

Copies: Belt; CaM-O; CtY-M; DLC; MiU; Sg.

———: Leonardo da Vinci on the Human Body. The Anatomical, Physiological, and Embryological Drawings of Leonardo da Vinci. With Translations, Emendations and a Biographical Introduction by Charles D. O'Malley and J. B. de C. M. Saunders. New York, Henry Schuman, [c1952]. 506 p. folio. 215 plates.

Note: The 215 plates are reproduced by a photographic process. Originally they were from the Leonardo da Vinci drawings at Windsor Castle; the Burndy Library, of Norwalk, Connecticut, provided the source works from which the drawings were reproduced. The Elmer Belt Library of Vinciana of Los Angeles also assisted in the assembling and editing of this handsome volume.

———: I manoscritti di Leonardo da Vinci della Reale Biblioteca di Windsor. *Dell' Anatomia Fogli A*. Pubblicati da Teodoro Sabachnikoff, trascritti e annotati da Giovanni Piumati, con traduzione in lingua francese. Preceduti da uno studio di Mathias-Duval. Paris, E. Rouveyre, 1898. 202 [1] pp. fol.

Copies: Belt; CSt-L; CaM-O; CtY-M; DLC; DSG; ICJ; MdBW; MBM; MH-M; MiU; NNN; Sg; Waller; Wellcome.

———: I manoscritti di Leonardo da Vinci della Reale Biblioteca di Windsor. *Dell' Anatomia Fogli B*. Pubblicati da Teodoro Sabachnikoff, trascritti e annotati da Giovanni Piumati. Con traduzione in lingua frances. Torino, Roux e Viarengo, 1901. 271 pp.; fol.

Copies: Belt; CtY-M; DLC; DSG; ICJ; MdBW; MBM; MH-M; MiU; NNN; O'M; Sg; Waller; Wellcome.

———: Les manuscrits B et D de la Bibliothèque de l'Institut [de France], publiés en facsimilés (procédé Arosa), avec transcription littérale, traduction française, préface et table méthodique par M. Charles Ravaisson-Mollien. Paris, Quantin, 1883. fol. Ms. B—2 p. l., 6 pp., [1] 170 ll. Ms. D 21 leaves & fol. 1-10; 30 pp.

Note: Manuscript B contains Leonardo's most important architectural drawings, the helicopter and flying machine, etc. Manuscript D deals exclusively with the human eye and vision. No complete edition exists in English.

Copies: Belt; CU-M; CtY-M; MH-M; MiU.

———: Quaderni d'anatomia. Comunicazioni dello istituto anatomico dell' Università di Christiania. Fogli della Royal Library di Windsor. Pubblicata da ove C. L. Vangensten, A. Fonahn, H. Hopstock. Con traduzione inglese e tedesca. Christiania, J. Dybwad, 1911-1916. 6 v. fol.

Note: "The anatomical drawings in Windsor Castle which were not included in Fogli A and B *dell' Anatomia* were published under the auspices of the Anatomical Institute of the University of Christiana, Oslo." Kate Steinitz.

Copies: Belt; CSt-L (v. 3); CU-M; CaM-O; CtY-M; DSG; ICJ; MdBW; MBM; MH-M; MnU; NNN; PPC; Sg; Waller; Wellcome.

Leoniceno, Niccolò of Vicenza: Libellus de Epidemia, quam vulgo morbum Gallicum vocant, Venice, June 1497. In. Sudhoff, Karl: The Earliest Printed Literature on Syphilis . . . Fac. pp. 117-182. (q. v.)

Copies: CSmH; CU-M; CaM-O; CtY-M; DLC; DSG; MdBW; MBM; MH-M; MiU; MnRM; NNN; OClCM; PPC; Waller; Wellcome.

Letulle, M.; *see* Laennec, R. T. H.

Library of Congress; *see* Nightingale, Florence; Roentgen, W. C.

de Lignamine, J. P.; *see* Apuleius Barbarus.

Linacre, T.; *see* Galen.

Lind, L. R.; *see* Vesalius, A.

Litil Boke the Which Traytied and Reherced many Gode Things, a . . . 1485; *see* Johannes Jacobi.

Lititz Pharmacopoeia; *see* Brown, W.

[Locke, William]: A Drug List of King Philip's War [1676]. Badger Pharmacist No. 25: 1-18 (Feb.) 1939.

Note: Reproduction in facsimile of a letter by Surgeon Will: Locke to Mr. Rawson, Sr., Secretary Mass. Bay Colony. Written at Hadly, May 30, 1676. Transcription and annotations are also included.

Copies: MBM; NNN.

London. Royal College of Physicians; *see* Pharmacopoeia Londinensis.

London Medical Papyrus: Der Londoner medizinische Papyrus (Brit. Museum nr. 10,059) und der Papyrus Hearst in Transkription, Uebersetzung und Kommentar. (Mit Facsimile des Londoner Papyrus auf 19 Lichtdruck Tafeln) v. 2 of Wreszinski's Die Medizin der alten Aegypter. Leipzig, J. C. Hinrichs, 237 pp., 19 facsimile plates, 1912. XIX.

Copies: CSt-L; CU-M; CaM-O; CtY-M; DSG; MdBW; MBM; MiU; NNN; PPC; Sg; Wellcome.

Long, E. R.; *see* Benivieni.

Lower, Richard, 1631-1691: A facsimile edition of Tractatus de Corde . . . by Richard Lower, M. D. London, 1669 . . . Prefaced by an Introduction and Translation by K. J. Franklin . . . [London, At the University Press, Oxford, 1932]. [120 pp.], facs. 7 p. l., 220 pp. 10 ll. illus.

Note: Published for subscribers as v. 9 of Gunther, R. T.: Early Science in Oxford.

Copies: CSmH; CaM-O; CtY-M; DSG; MdBW; MBM; MH-M; MiU; MnRM; MnU; NNN; OClCM; PPC; Sg; St.B; Waller; Wellcome.

M., I.: . . . A Health to the Gentlemanly Profession of Serving-men, 1598 . . . With an Introduction by A. V. Judges. Published for the Shakespeare Asso-

ciation by Humphrey Milford, Oxford University Press, 1931. xiv, and facs. (74 unn. pp.), 1 l. Shakespeare Association Facsimiles, no. 3.
Note: The authorship of this tract remains in doubt. It has been ascribed to Gervase (Jervis) Markham. Reproduced from the copy in the British Museum.
Copies: CSmH; CtY-M; DLC; MBM; MiU; MnU.

McCunn, J. C.; *see* Stubbs, G.

McDaniel, W. B. 2d; *see* Johannes Mercurius Corrigiensis.

Madsen, V.; *see* Anatomie Mandchoue.

Maimoinides: Regimen Sanitatis . . . für den Sultan el Malik al-Afdhal. Faksimile der Ausgabe Florenz nach dem Exemplar der Bayerischen Staats-Bibliothek, mit einem Vorwort von A. Freimann. Heidelberg, H. Grossberger, [1931] 14 pl., 1 l. 79 pp. (350 numbered copies).
Note: This is a consultation in the nature of a letter concerning hygiene and dietetics written for the Egyptian Sultan el-Malik al Afdhal, Son of Saladin.
Copies: CSmH; MdBW; PPC.

Malloch, A.; *see* Caius, J.; Vesalius, A.

Mantuani, J.; *see* Dioscorides.

Markham, G.; *see* M., I.

Martin, W.; *see* Galen.

Martinus La Cruz; *see* The Badianus manuscript.

Marzell, H.; *see* Fuchs, L.

Massachusetts. Sanitary Commission: Report of the Sanitary Commission of Massachusetts, 1850, by Lemuel Shattuck and Others, with a Foreword by Charles-Edward Amory Winslow. Cambridge, Harvard University Press, 1948. ix, facsim. 321 pp., diagrs.
Note: Facsimile of the original ed. of the report (without appendices) pub. under title: Report of a general plan for the promotion of public and personal health, devised, prepared and recommended by the Commissioners appointed under a resolve of the legislature of Massachusetts, relating to a sanitary survey of the state. Boston, 1850.
Copies: CU-M; CtY-M; MdBW; MH-M; MnU; PPC.

Matthiesen, W.; *see* Paracelsus.

Mead, R.; *see* Bonomo, G. C.

Mead Johnson & Company; *see* Chalmers, L.

Medizin der alten Aegypter; *see* Wreszinski, W., ed.

Meichinger; *see* Widmann, H.

Mercurius Corrigiensis; *see* Johannes Mercurius Corrigiensis.

Metlinger, Bartholomäus: Ein Regiment der jungen Kinder. [Augsburg, Günther Zainer, 1473.] Folio, 28 ll. Reproduced in facsimile in: Sudhoff, Karl, ed.: Erstlinge der pädiatrischen Literatur. Drei Wiegendrucke . . . 1925. (q. v.)
Copies: CSmH; CaM-O; CtY-M; DSG; MdBW; MBM; MiU; NNN; PPC; Waller; Wellcome.

Millar, E.; *see* Arderne, J.

Mollien, C. Ravaisson; *see* Leonardo da Vinci.

Mondino dei Luzzi, d. 1326: Anatomia. Riprodotta da un codice bolognese del sec. xiv e volgarizzata nel sec. xv. A cura del Lino Sighinolfi; presentazione del Giacinto Viola. Bologna, L. Cappelli, 1930. viii, 197 pp., followed by facsimile: lxxxiii, 4 pp. (Classici Italiani della medicina, I.)
Copies: CSt-L; CU-M; CtY-M; DSG; MdBW; NNN; PPC; Sg; Waller.

———: . . . Anatomies de Mondino dei Luzzi et de Guido de Vigevano. Paris, E. Droz, 1926. 91 pp., [1]. illus. 16 pl. (part. col.) (Ed. by Ernest Wickersheimer). (Documents scientifiques du xv^e^ siècle, t. iii).
Note: The Mondino is reproduced from the copy in the British Museum, Anothomia Mundini. (Imprinted 19 Dec. 1478 at Pavia by Antonio de Carcano.) Other "Incipits," title pages, illustrations and colophons are also reproduced from other editions of Mondino. 16 plates without text are reproduced from a ms. of the Anatomy of Guido de Vigevano.
Copies: CSmH; CSt-L; DSG; ICJ; MdBW; MH-M; MiU; NNN; OClCM; PPC; Sg; Waller.

Montesauro, Natale of Verona: De dispositionibus quas vulgares mal franzoso appellant. Verona? 1498. In: Sudhoff, Karl: The earliest printed literature on syphilis . . . Fac. pp. 279-311. (q. v.)
Copies: CSmH; CU-M; CaM-O; CtY-M; DLC; DSG; MdBW; MBM; MH-M; MiU; MnRM; NNN; OClCM; PPC; Waller; Wellcome.

Monumenta medica, 5 v. Milan, 1924-1928.
Note: Bibliographical details are given under main entries, q. v. Abbreviated contents follow:

v. 1. Ketham, J.: Fasciculus medicinae . . . 1491.
v. 2. Ketham, J.: Fasicolo di medicina . . . 1493. 2 v.
v. 3. Sudhoff, K.: Earliest printed literature on syphilis, 1495-1498.
v. 4. Canano, G. G.: Musculorum . . . dissectio . . . 1541?
v. 5. Harvey, W.: Exercitatio anatomica de motu cordis . . . 1628.

Morgan, John, 1735-1789: . . . A Discourse upon the Institution of Medical Schools in America . . . Reprinted [in facsimile] from the first edition, Philadelphia, 1765. With an introduction by Abraham Flexner, Baltimore, The Johns Hopkins Press, 1937. vi, vii, xxviii, 63 pp.
Note: Publications of the Institute of the History of Medicine, The Johns Hopkins University, 4th ser. Bibliotheca Medica Americana, v. 2.
Copies: MdBW; MnRM.

Moses ben Maimon; *see* Maimonides.

Mumey, N.; *see* Jenner, E.

Mundinus; *see* Mondino dei Luzzi.

Neuburger, M.; *see* Auenbrugger, L.

New York Academy of Medicine, Library; *see* Franklin, B.; Vesalius, A.

Nightingale, Florence: Notes on Nursing . . . London, Harrison, 1859. [Facsimile of the 1st ed. . . . by photo-offset]. Philadelphia, Lippincott, 1946. 2 p. l., facs. 1 l., 79 pp., 3 pp.

Note: "This is a real facsimile, but I'm doubtful whether it reproduces the 1859 first issue." W. W. Francis. Reproduced from the copy in the Library of Congress.

Copies: CaM-O; DLC; DSG; MdBW; NNN; PPC.

Nuremberg Plague Regiment (1531); *see* Regiment wesz man sich ytz.

Olai, Benedictus: Een Nyttigh Läkere Book. Stockholm, 1578. Faksimil ed. Med inledning av professor O. T. Hult. Malmö, P. Kroon, 1938. 21 pp., (1) l., 4 pl., (6) ll., 199 pp., (3) ll.

Copies: NNN; Waller.

Oldenburg, H.; *see* Leeuwenhoek, A. v.

O'Malley, C. D.; *see* Fuchs, L.; Vesalius, A.

Orders, Thought Meete, by her Maiestie, and her Privie Counsell, to be Executed Throughout the Counties of this Realme, in such Townes, Villages, and other Places, as are, or may be hereafter Infected with the Plague . . . Imprinted at London by the Deputies of Christopher Barker, Printer to the Queenes most excellent Maiestie, An. Do. 1592. Facs. 15 pp. (Bound with Present remedies etc.) Shakespeare Association Facsimiles No. 7.

Copies: CSmH; CtY-M; DLC; MdBW; MBM; MiU; MnU; NNN; PPC; Sg.

Ortolff von Bayerland: Das Frauenbüchlein . . . gedruckt vor 1500. [Facsimile reprint.] Begleit-Text von Gustav Klein. München, C. Kuhn, 1910. 2 p. l., 14 pp., 31 pp., 4 pl.

Note: Forms v. 1 of Alte Meister der Medizin und Naturkunde . . . Includes excerpts and facsimile leaves from Ortolff's "Arzneibuch" (1478).

Copies: CSmH; CtY-M; DLC; DSG; ICJ; MBM; MiU; NNN; PPC; Sg.

Osler, Sir William; *see* Beaumont, W.

Ostheimer, A. J.; *see* Parkinson, James.

Ottaway, C. W.; *see* Stubbs, G.

Padua, University; *see* Harvey, William.

Papyrus Ebers: Papyros Ebers, das hermetische Buch über die Arzeneimittel der alten Aegypter in hieratischer Schrift. Herausgegeben, mit Inhaltsangabe und Einleitung versehen von Georg Ebers. Mit hieroglyphisch-lateinischem Glossar von Ludwig Stern . . . Leipzig, W. Engelmann, 1875. 2 v. folio.
Note: This papyrus was obtained by Georg Ebers at Thebes in 1873. It is believed to have been written about 1500 B. C. but is based on material of greater antiquity. It was tr. into English by B. Ebbell "The Papyrus Ebers, the greatest Egyptian medical document." Tr. by B. Ebbell. Copenhagen, London, 1937.
Copies: CSt-L; CaM-O; CtY-M; DLC; DSG; ICJ; MdBW; MBM; MiU; MnU; NNN; Wellcome.

Papyrus Hearst: . . . The Hearst Medical Papyrus. Hieratic Text in 17 Facsimile Plates in Collotype, with Introduction and Vocabulary by George A. Reisner. Leipzig, J. C. Hinrichs, 1905. 4 p. l., 48 pp., 17 plates. (University of California Publications, Egyptian Archaeology, v. 1).
Note: "In the spring of 1901 a roll of papyrus was brought to the camp of the Hearst Egyptian Expedition near Der-el-Ballas by a peasant of the village as a mark of his thanks at being allowed to take *sebal* from our dump-heaps near the Northern *Kom* . . . etc." George A. Reisner.
Copies: CU-M; CtY-M; DSG; ICJ; PPC.

Papyrus Hearst; *see* also London Medical Papyrus.

Paracelsus, 1493-1541: Drey Bücher Durch den hochgelerten Herrn Theophrastum von Hohenheim Paracelsum genant . . . Das erst Buch die verantwortung uber etzlich verunglimpfung seiner missgünner . . . Gedruckt zu Cöln Durch die Erben Arnoldi Byrckmanni. Anno 1564. 52 p.
Note: This facsimile contains only the dedication and the Seven Defensiones. It was made in 300 numbered copies for the Institut für Geschichte der Medizin an der Universität Leipzig by the Spamerschen Buchdruckerei, Leipzig, 1928. The "Seven Defensiones" have been translated into English by C. Lilian Temkin see *Four Treatises of Theophrastus von Hohenheim Called Paracelsus* . . . Baltimore, The Johns Hopkins Press, 1941.
Copy: MdBW.

———: Vom Holz Guaiaco gründlicher Heilung. [Gedruckt zu Nurmberg durch Friderichen Peypus, 1529.] Reproduced in Sämtliche Werke (ed. by Karl Sudhoff and Wilhelm Matthiesen). v. 7. München, O. W. Barth, 1923. 8 ll.
Copies: CST-L; CTL-M; DLC; DSG; ICJ; Md.BW; PPC; Waller.

———: Vom Holz Guaiaco gründlicher Heilung, 1529. Facs. ed. Otto Wilhelm Barth Verlag. München, Planegg, 1929.
Copy: Waller.

Parkinson, James: An Essay on the Shaking Palsy . . . London, Sherwood, Neely, and Jones, 1817. IV, 1 l., 66 pp.
Note: This facsimile edition was published by the American Medical Association. It first appears in the Association's "Catalogue" in 1929. A few copies

are still available. The "Essay" was also reprinted (but not in facsimile) in the Arch. Neurol. Psychiat. as follows: "An Essay on the Shaking Palsy, by James Parkinson . . . with a bibliographic note thereon" by Alfred J. Ostheimer . . . Arch. Neurol. Psychiat. 7:681-710 (June) 1922.
Copy: ICJ.

Pasteur, Louis, 1822-1895: Études sur la bière: ses maladies, causes qui les provoquent, procédé pour la rendre inaltérable, avec une théorie nouvelle de la fermentation. Paris, Gauthier-Villars, 1876 (ie 1920) VIII, 387 p., 12 pl.
Note: Facsimile edition published in 1920.
Copy: MnRM.

Payne, J. F.; *see* Galen; Harvey, W.

Pedersens Laegebog; *see* Christiern Pedersens Laegebog.

Pharmacopoeia Augustana: . . . A Facsimile of the First Edition of the Pharmacopoeia Augustana, with Introductory Essays by Theodor Husemann . . . Madison, [Wis.], State Historical Society of Wisconsin, 1927. xlii, 1 l., 261 no. facs. columns, and 6 pp. index and 2 l. facs. ms. additions.
Copies: CSmH; CSt-L; CU-M; DLC; DSG; ICJ; MdBW; MBM; MiU; MnU; NNN; O'M; PPC; Sg; Wellcome.

Pharmacopoeia Londinensis: Pharmacopoeia Londinensis of 1618 . . . Reproduced in Facsimile . . . with a Historical Introduction by George Urdang . . . Madison, [Wis.], State Historical Society of Wisconsin, 1944. vii, 1 l., 81 pp., [85-299 includes facsimile and index.]
Copies: CSmH; CSt-L; CU-M; CaM-O; CtY-M; DSG; ICJ; MiU; NNN; PPC; Wellcome.

Pictor, Georg, 1500-1569: Pictor's Tract on the Treatment of the Renal Calculus (1557). Facsimile: with English translation, by Charles Greene Cumston . . . [London, George Routledge & Sons, Ltd.; Geneva, [Switzerland] Printed by A. Kundig, 1925.] Facsim. (3 p. l., 33 pp., 1 l., 63 pp., 1 l., illus.)
Note: Original title: Gries Büchlein. Durch was Mittel und Ordnung ein yeder von dem Gries oder Nierenstein mög gesichert werden . . . (etc.) Edition ltd. to 400 copies; the plates have been destroyed. For further information see Cumston, C. G.: Une note sur l'excellent petit livre publié, en 1557 par Georges Pictor. Bull. Soc. franç. d'hist. de la méd. 18:357-360, 1924.
Copies: DSG; MdBW; MiU; MnRM; NNN; PPC; Sg; Waller; Wellcome.

Piumati, G.; *see* Leonardo da Vinci.

Power, D'Arcy; *see* Arderne, J.

Premerstein, Ade; *see* Dioscorides.

. . . Present Remedies Against the Plague etc. With an Introduction by W. P. Barrett. Published for The Shakespeare Association by Humphrey Milford, Oxford University Press, 1933. xix, [27] pp. facs. 12 pp. (unnumbered).
Note: Followed by a facsimile edition of Orders, thought meete by her Maiestie, and her privie counsell . . . 1592. (See under Orders). Shakespeare Association Facsimiles No. 7.

Copies: CSmH; CtY-M; DLC; MdBW; MBM; MiU; MnU; NNN; PPC; Sg.

Priestley, Joseph, 1733-1804: Directions for Impregnating Water with Fixed Air, in Order to Communicate to it the Peculiar Spirit and Virtues of Pyrmont Water . . . A [facsimile] reprint of the original pamphlet by Dr. Priestley . . . presented by American Bottlers of Carbonated Beverages, Washington, D. C. [1945]. [With a chapter, " Priestley and carbonated waters " by John J. Riley.] pp. 1-18. Facs. reproduction, III, 22 pp., 2 ll. (original ed. publ. as London, J. Johnson, 1772.)

Copies: CU-M; DLC; ICJ; MH-M; MnRM.

Proskauer, C.; *see* Artzney Buchlein; Regiment wesz man sich ytz.

Purkyne, J. E.: Commentatio de examine physiologico organi visus et systematis cutanei. Vratislaviae, 1823. ii and 58 pp. with 1 table. Facsimile reprint, 1937.

Pyles, T.; *see* Herbal, An.

Quellen und Beiträge zur Geschichte der Zahnheilkunde . . . v. 2; *see* Artzney Buchlein.

Rabin, C. B.; *see* Vesalius, A.

Ravaisson-Mollien C.; *see* Leonardo da Vinci.

Redi, F.; *see* Bonomo, G. C.

Regimen sanitatis: Regimen sanitatis. The Rule of Health. A Gaelic Medical Manuscript of the Early 16th Century, or Perhaps Older, from the Vade Mecum of the Famous MacBeaths, Physicians to the Lords of the Isles and the Kings of Scotland . . . Glasgow, University Press, 1911. 5 p. l., 139 pp. 15 facsimile plates.

Copies: CaM-O; CtY-M; DLC; DSG; ICJ; MiU; MnU; NNN; PPC; Sg; Waller; Wellcome.

Regimen Sanitatis; *see* Maimonides.

Regiment wesz man sich ytzund, und fortan zur zeyt der Pestilentz, mit essen, trincken und paden halten sol. Auch findestu hierjnne mancherley bewerter Artzeney zu den bösen Zenen. Von des geprante weins tugende, Zwen und zwaintzig Artickel [Nuremberg] Wolffgang Resch, 1531. 4 ll. Reprod. in Proskauer, Curt: . . . Pestregiment and Artzeney zu den Bösen Zähnen of the year 1531, a contribution to the earliest dental literature. Bull. Hist. Med. 13: 83-95, 1943.

Note: " The Nuremberg Plague Regiment published in 1531, is chronologically the second of the self-contained dental publications that have appeared in print."

Reisner, G. A.; *see* Papyrus Hearst.

Riley, J. R.; *see* Priestley, J.

Remède très utile contre la fièvre pestilencieuse. Paris, Ant. Caillaunt; n. d. pp. 39-45.
Note: Reproduced in facsimile in Klebs and Droz: Remèdes contre la Peste . . . Paris, 1925. (q. v.)
Copies: CSmH; CaM-O; DLC; DSG; MdBW; MBM; MH-M; MiU; NNN; PPC; Wellcome.

Roelans, Cornelius, 1450-1525: Liber de aegritudinibus infantium. [Louvain, 1485-1488.] Octavo. 117 ll.
Note: Reproduced in facsimile in Sudhoff, Karl, Ed.: Erstlinge der pädiatrischen Literatur. Drei Wiegendrucke . . . 1925 (q. v.)
Copies: CSmH; Ca-MO; CtY-M; DLC; DSG; MdBW; MBM; MiU; NNN; PPC; Waller; Wellcome.

Roentgen, Wilhelm Konrad Von, 1845-1923: Ueber eine neue Art von Strahlen [Würzburg, 1896]. Reprod. in [Sarton, George] The discovery of X-rays, with a facsimile reproduction (no. xviii) of Röntgen's first account of them published early in 1898. Isis 26: 349-369, 1936.
Note: Roentgen read this communication at the Dec. 28, 1895 meeting of the Physikal.-medicin. Gesellschaft. The facsimile is reproduced from the copy in the Library of Congress.

Roesslin, Eucharius, d. 1526: Eucharius Roesslin's "Rosengarten," gedruckt im Jahre 1513. Begleit-Text von Gustav Klein. München, C. Kuhn, 1910. 3 p. l., 110 (facsim.), [4], (blank) xvii. illus., xv facsim. (3 fold.)
Note: Facsimile of the third of the three editions of 1513. (Alte Meister der Medizin und Naturkunde in Facsimile-Ausgaben und Neudrucken nach Werken des 15.-18. Jahrhunderts . . . v. 2),
Copies: CSmH; CSt-L; CU-M; CtY-M; DLC; DSG; ICJ; MdBW; MBM; MiU; MnRM; MnU; NNN; O'M; PPC; Sg; Waller; Wellcome.

Roland of Parma, [surnamed Capelluti], c. 1230: La chirurgia di M. Rolando da Parma detto dei Capezzuti, Reproduzione del codice Latino N. 1382 della R. Biblioteca Casanatense, Roma; volgarizzamento e note del Dott. Giovanni Carbonelli . . . Roma, Istituto nazionale medico farmacologico, 1927 folio. 3 p. ll., 5-23 pp., facsim. 28 ll., col. illus.
Copies: CtY-M; DSG; MdBW; MBM; MnRM; NNN; Waller; Wellcome.

Rome, Biblioteca Casanatense; *see* Theatrum Sanitatis.

Rooses, Max; *see* Sambucus, Johannes.

Rosenbach, A. S. W.; *see* Elyot, Sir T.

Royal College of Physicians of London; *see* Harvey, William.

Royal Library, Stockholm; *see* Arderne, J.

Royal Library, Windsor; *see* Leonardo da Vinci.

Rudbeck, Olof, 1630-1702: Hortus botanicus variis exoticis indigenisque plantis instructus . . . Upsalae, Henr. Curio, 1685. Ad celebrandam eius Natalem CCC^mo Anno redeuntem denuo phototypice edidit Societas Linnaeana Auecorum. Uppsala, Almquist et Wicksell, 1930. (2) ll., 120 pp., (5) pp.
Copies: CtY-M; Waller.

———: Nova exercitatio anatomica, *exhibens* ductus hepaticos aquosos, et vasa glandularum serosa, nunc primum inventa, aeneisque figuris delineata, . . . cui accessere aliae ejusdem observationes anatomicae . . . Arosiae, Eucharius Lauringerus, 1653. Upsaliae, Almquist and Wiksells Boktryckeri, 1930. 130 ll.
Note: This publication announces the discovery of the lymphatics. For an English Translation see A Translation of Olof Rudbeck's *Nova Exercitatio Anatomica*, . . . by A. E. Nielsen. With a biographical note by Goran Liljestrand. Bull. Hist. Med. 11: 304-339, 1942.
Copies: CU-M; CtY-M; DLC; DSG; MdBW; NNN; PPC; Sg; Waller.

———: Olai Rudbeckii Sveci ad Thomam Bartholinum Danum Epistola. Upsaliae, Impensis Johannis Pauli, 1657. [Ed. by O. T. Hult, Sv. Läkaresällskapets bibliotekarie] Stockholm, Generalstabens litografiska anstalt, 1930. 3 ll., 72 pp.
Copies: CtY-M; MdBW; Waller.

Sabachnikoff, T.; *see* Leonardo da Vinci.

St. Martin, Alexis: Four letters of Alexis St. Martin . . . Ann Arbor, [Michigan] William L. Clements Library, 1937. 8 pp.
Note: This booklet reproduced by photo-offset contains four letters in manuscript addressed to Dr. James H. Etheridge of Rush Medical College. Since St. Martin is thought to have been illiterate they are probably in the handwriting of a friend or acquaintance.

Salicetus; *see* Widmann, H.

Sambucus, Johannes, 1531-1584: Icones veterum aliquot, ac recentium medicorum, philosophorumque elogiolis suis editae, opera I Sambusi. [Reproduced in facsimile from the Plantin Edition of 1574. With a preface by Max Rooses] Antwerp, Nederlandsche Boekhandel, 1901. 2 p. l., vii, 2 l., 67 plates. (Half-title: Maatschappij der Antwerpsche bibliophilen, urtg. no. 21.)
Copies: CtY-M; DLC; DSG; ICJ; MdBW; Waller.

Sanskrit Nâvanêtaka; *see* Bower manuscript, the.

Sarton, G.; *see* Baer, K. E. von; Roentgen, W. C.

Saunders, J. B. de C. M.; *see* Vesalius, A.

Scanaroli, Antonio, 15th cent.: Disputatio de morbo gallico. Bologna 26 March, 1498. In: Sudhoff, Karl: The Earliest Printed Literature on Syphilis . . . Fac. pp. 313-352. (q. v.)
Copies: CSmH; CU-M; CaM-O; CtY-M; DLC; DSG; MdBW; MBM; MH-M; MiU; MnRM; NNN; OClCM; PPC; Waller; Wellcome.

Schellig, Conrad, 1448-1508: In pustulas malas morbum quem malum de francia vulgus appellat que sunt de genere formicarum salubre consilium, Heidelberg, 1495-1496. In: Sudhoff, Karl: The Earliest Printed Literature on Syphilis . . . (q. v.)
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Schnorr, H.; *see* Alte Meister der Medizin und Naturkunde.

Scholars' Facsimiles and Reprints; *see* Caius, John: A Boke of . . . the . . . Sweatying Sicknesse (1552); Elyot, Sir Thomas: The Castel of Helth (1541); Herbal, An (1525); Turner, William: A book of the Natures of all Wines (1568).

Schreiber, W. L.; *see* Heitz, P.; Hortus sanitatis.

Schuster, Julius; *see* Schwestermiller, Konrad.

Schwestermiller, Konrad, fl. 1484: Pest regiment. Cölln. a. d. Spree, 1484. Facsimile in Freytag, G.: Bilder aus d. deutschen Vergangenheit, 1924. Bd. 2.
Copies: DLC; Wellcome.

———: . . . Regiment und Lehre wider die schwere Krankheit der Pestilenz, [1484]. Mit Einführung von Julius Schuster. Neu herausgegeben vom Vorstande des Berliner Bibliophilenabends. Berlin, 1925. 7 p. ll., 6 ll. (facs), 1 l.
Copy: ICJ.

Serra, L.; *see* Theatrum sanitatis.

Servetus, Miguel, 1511-1553: In Leonardum Fuchsium Apologia, auttore Michaele Villanovano, 1536. 8 ll. [Reproduced London, Oxford University Press, 1909]. 16 pp.
Note: Facsimile from the unique copy in Dr. Williams' Library, London.
Copies: CSt-L; CtY-M; DSG; MdBW; MnU; PPC; Sg; Waller; Wellcome.

Shakespeare Association Facsimiles; *see* Gifford, George (no. 1); Laurentius (no. 15); M. I. (no. 3); Orders thought meete (bd. with no. 7); Present remedies (no. 7).

Shattuck, L.; *see* Massachusetts. Sanitary Commission.

Sigerist, H.; *see* Arnaldo de Villanova; The Badianus Manuscript; Brunschwig, H.; Monumenta medica.

Sighinolfi, L.; *see* Mondino dei Luzzi.

Singer, C.; *see* Benivieni; Ketham, J. de; Vesalius, A.; Wateson, G.

Smellie, William, 1697-1763: A Set of Anatomical Tables, with Explanations. And an Abridgement, of the Practice of Midwifery, with a View to Illustrate a Treatise on That Subject, and Collection of Cases, 2nd Edition, corrected, Printed in the Year 1761. London, 1761. 22 l. 39 pl., fol.

Note: A photographic reprint facsimile was produced in Germany according to David Low, London bookseller. No details are given as to origin or date. *See*: Catalogue 106, David Low (Booksellers) Ltd. item 665.

Smith, Edwin; *see* Edwin Smith.

Snow, John, 1813-1858: On Chloroform and Other Anaesthetics, their Action and Administration . . . London, J. Churchill, 1858. viii, xliv, 433 pp.

Note: Reproduced in facsimile for the American Society of Anesthesiologists 1950. Edition limited to 500 copies.

Copies: DSG; MnRM; NNN; Wellcome.

———: On the Inhalation of the Vapour of Ether in Surgical Operations: Containing a Description of the Various Stages of Etherization, and a Statement of the Result of Nearly Eighty Operations in which Ether has been Employed in St. George's and University College Hospitals . . . London, J. Churchill, 1847. vii, 88 pp., illus.

Note: Reproduced in facsimile for the American Society of Anesthesiologists in 1947 from the copy in the Boston Medical Library.

Copies: CaM-O; DSG; Wellcome.

Society of American Bacteriologists; *see* Leeuwenhoek, A. v.

Souze-Araujo, H. C. de; *see* Danielssen, D. C.

Spencer-Churchill, E. G.; *see* Apuleius Barbarus.

Stafford, Edward: Receipts to Cure Various Disorders, for my Worthy Friend Mr. Winthrop. 1643. Badger Pharmacist. No. 15: 1-24 (April) 1937.

Note: The original ms. is in the Boston Medical Library. It is reproduced here with transcription and commentary.

Copies: MBM; NNN.

Starnes, De Witt T.; *see* Clowes, W.

Steber, Bartholomaus, d. 1506: A malafranczos, morbo gallorum, praeservatio ac cura. Vienna, 1498. In: Sudhoff, Karl: The Earliest Printed Literature on Syphilis . . . Fac. pp. 261-277. (q. v.)

Copies: CSmH; CU-M; CaM-O; CtY-M; DLC; DSG; MdBW; MBM; MH-M; MiU; MnRM; NNN; OClCM; PPC; Waller; Wellcome.

Steensen, N.; *see* Steno, N.

Steinhöwel, Heinrich, 1420-1482: Buechlin der Ordnung wie such der Mensch halten sol zu dan Zÿten diser grúsenlichen Kranckheit. Ulm, Johanne Zainer, 1473.

Note: Reproduced in facsimile in Klebs, A. C.: Die ersten gedruckten Pestschriften. München, 1936. (q. v.)

Steno, Nicolas, 1638-1686: A Dissertation on the Anatomy of the Brain . . . 1665,

with a Preface and Notes by Edv. Gotfredsen . . . Copenhagen, Arnold Busck, 1950. xiv, 6 ll., 60 pp., 4 pl., 4 ll., 50 pp., 1 l. [Facsimile of Discours de Monsieur Stenon sur l'anatomie du cerveau. Paris, Robert de Ninville, 1669, with an English translation.].

Note: "Steno's treatise on the anatomy of the brain is from his best years and it provides an excellent picture of the clear-thinking mind and critical sense of the young scholar. These observations appeared in the year 1665 as a lecture delivered before a gathering of learned people assembled in Melchisédech Thévenot's house in Paris. Thévenot, who later became Louis XIV's librarian, was one of the most influential patrons of science . . . The English translations from 'An Anatomical Exposition of the Structure of the Human Body' by James Benignus Winslow. Translated from the French Original by G. Douglas . . . London, N. Prevost, 1733. v. 2, pp. 56-73." Edv. Gotfredsen. Edited for the members of the XVIII Physiological Congress at the expenses of the Rask-Orsted Foundation.

Copies: CtY-M; DSG; MdBW; MnRM; NNN; Sg; Waller.

Sterling-Maxwell, Sir William; *see* Vesalius, A.

Stockholm. Royal Library; *see* Arderne, J.

Streeter, E. C.; *see* Canano, G. B.

Stromayr, Caspar, fl. 1559: Die Handschrift des Schnitt-und Augennarztes Caspar Stromayr in Lindau im Bodensee (Practica Copiosa von dem rechten Grundt dess Bruch Schnidts mit sambt denn Figuren, darneben etliche Imposturas vüler unerfarnen Schnidt und Wundartzt.) Mit einer historischen Einführung und Wertung von Walter von Brunn. Berlin, Idra- Verlagsanstalt, 1925. xxvii, 195 pp., 169 pl.

Copies: CSt-L; CtY-M; MnU; NNN; Waller; Wellcome.

Stubbs, George, 1724-1806: The Anatomy of the Horse . . . with a modern paraphrase by J. C. McCunn, assisted by C. W. Ottaway. London, G. Heywood Hill, 1938. front. 3 ll., 47 pp., 15 anatomical tables in 35 plates. large fol.

Note: George Stubbs. the famous eighteenth century artist and anatomist, published this work in 1776. It was reprinted in 1938. It is included since the plates are reproduced by a photographic process.

Copy: OClCM.

Sudhoff, Karl, 1853-1938, ed.: The Earliest Printed Literature on Syphilis, Being Ten Tractates from the Years 1495-1498. In complete facsimile with an introduction and other accessory material by Karl Sudhoff, adapted by Charles Singer. Florence, R. Lier and Co., 1925. xlviii, 2 ll., facsim., 3-352 pp., illus. (Monumenta medica, v. 3).

Copies: CSmH; CSt-L; CU-M; CtY-M; DLC; DSG; MdBW; MBM; MH-M; MiU; MnRM; MnU; NNN; OClCM; O'M; PPC; Waller; Wellcome.

———: Erstlinge der pädiatrischen Literatur. Drei Wiegendrucke über Heilung

und Pflege des Kindes. In Faksimile herausgegeben und in die literarische Gesamtentwicklung des Faches hineingestellt von Professor Dr. Karl Sudhoff, Leipzig . . . München, Verlag der Münchener Drucke, 1925. liii, [1] p., xxiii facsim. (1 double) 18 ll., [2] pp., facsim.: [79], [56], [235] pp.
Note: Contents: 1. Paulus Bagellardus' Libellus de Aegritudinibus Infantum. 2. Das Regiment der Jungen Kinder des Augsburger Aerztes Bartholomäus Metlinger. 3. Cornelius Roelans' Von Mechln "Opusculum egritudinum puerorum."
Copies: CSmH; CSt-L; CaM-O; CtY-M; DSG; MdBW; MBM; MiU; MnU; NNN; PPC; Waller; Wellcome.

———: Graphische und typographische Erstlinge der Syphilisliteratur aus den Jahren 1495 und 1496. München, C. Kuhn, 1912. vii, 27 pp., 1 l., 24 pl., fol.
Note: Forms v. 4 of Alte Meister der Medizin und Naturkunde in Facsimile Ausgaben . . .
Copies: CSmH; CaM-O; CtY-M; DLC; DSG; ICJ; MBM; MiU; NNN; Waller; Wellcome.

Sudhoff, K.; *see* Alte Meister der Medizin und Naturkunde; Artzney Buchlein; Brunschwig, H.; Ketham, J. de; Klebs, A. C.; Paracelsus; Vesalius, A.

Surphlet, R.; *see* Du Laurens, A.

Tannenbaum, S. A.; *see* Elyot, Sir Thomas.

Temkin, C. L.; *see* Paracelsus.

Thacher, Thomas: A Brief Rule to Guide the Common-people of New-England How to Order Themselves and Theirs in the Small pocks, or Measels. [First published in 1677/8, reprinted in 1702 and 1721-22.] Baltimore, The Johns Hopkins Press, 1937. liv, 3 facsim. (broadside, 8 pp., 8 pp.) port.
Note: (Facsimile reproductions of the three known editions of the first North American medical publication). Introduction by Henry R. Viets. Publications of the Institute of the History of Medicine, The Johns Hopkins University, Fourth Series, Bibliotheca Americana, v. 1.
Copies: CSmH; CSt-L; CU-M; CaM-O; CtY-M; DLC; DSG; ICJ; LNT-M; MdBW; MBM; MiU; MnU; NNN; PPC; Sg; Waller; Wellcome.

Theatrum sanitatis Codice 4182 della R. Biblioteca Casanatense. Roma, La Libreria dello Stato, 1940. 2 v. fol. v. 2 contains reproductions of the plates in color.
Note: Preceded by studies of the codex by Luigi Sena and Silvestro Baglioni.
Copies: DLC; DSG; NNN.

Thomas Brabantinus (or Cantimpratensis) ca. 1201-1270: Die Gynaekologie des Thomas von Brabant. Ausgewählte Kapitel aus Buch I, De naturis rerum, beendet um 1240. Zum ersten Male hrsg. von Christ. Ferckel. München, C. Kuhn, 1912. 3 p. l., 82 pp., 1 l., 21 pl.
Note: Forms v. 5 of Alte Meister der Medizin und Naturkunde in Facsimile-Ausgaben . . .

Copies: CStL; CtY-M; DLC; DSG; ICJ; MBM; MiU; NNN; PPC; Sg; Waller; Wellcome.

Thomsen, V.; *see* Anatomie Mandchoue.

Thurneisser zum Thurn, Leonhardt: Historia und Beschreibung Influentischer, Elementischer und Natürlicher Wirckungen Aller fremden und Heimischen Erdgewechssen auch irer Subtiliteten sampt warhafftiger und Künstlicher Conterfeitung, derselbigin auch alle teiler Innerlicher un Eüsserlicher glider am Menschlichen Cörper, nebend fürbildung aller zü der Extraction dienstlichen Instrumenten auch deren gebrauch und alle zü erhaltung der gesundheit notwendigen Processen gemeine nutz zü güt. [Berlin, 1578]. pp. 1-19, 20, 20, 21, 21, pp. 22-90, 90, 91, 93-156.
Note: This facsimile edition of a popular lay medical work was commissioned by the publishers of Asokthebu by Otto Wilhelm Barth, in the printing office of Mandruck and Co., 300 copies being issued. München, 1922.
Copy: DSG.

Torella, Gaspare of Valencia: Tractatus cum counsiliis contra pudendagram seu morbum gallicum. Rome, 22 November, 1497. In: Sudhoff, Karl: The Earliest Printed Literature on Syphilis . . . Fac. pp. 183-230. (q. v.)
Copies: CSmH; CU-M; CtY-M; DLC; DSG; MdBW; MBM; MH-M; MiU; MnRM; NNN; OClCM; PPC; Waller; Wellcome.

Turner, William: The Book on Treacles; *see* Turner's A Book on Wines (1568).

Turner, William, c1510-1568: A Book on Wines . . . [1568] Together with a Modern English Version of the Text by the Editors and a General Introduction by Sanford V. Larkey . . . and an oenological note by Philip M. Wagner. New York, Scholars' Facsimiles and Reprints, 1941. xxxvii, 5 ll., facsim. 47 ll., 79 pp. Turner's Book on Treacles is included.
Note: "Turner's book on wines has a special importance in the history of wines since it was not only the first single work in English on the subject, but as Simon says, it is particularly precious because it was known to Shakespeare and was of great service to him."
Copies: CStL; CaM-O; CtY-M; DSG; MdBW; MiU; MnU; NNN; O'M; Wellcome.

———: Libellus de re herbaria novus . . . originally published in 1538, reprinted in facsimile, with notes, modern names, and a life of the author, by Benjamin Daydon Jackson, F.L.S. London, Privately Printed, 1877. XVIII, 10 ll. (facsimile), 12 p.
Note: This is a reproduction of the first English publication "of a true Botanical cast." The author, a physician, clergyman was the father of English botany. It also contains Turner's bibliography.
Copy: DSG.

Ulsenius, Theodoricus: Flügblätt. Nuremberg, 1496. Facs. ca. 1910. 1 fol. 1. Includes Albrecht Dürer's Illustration of a patient with the plague.
Copy: MBM.

Ungar; *see* Auenbrugger, L.

Urdang, G.; *see* Pharmacopoeia Londinensis.

University of Munich; *see* Vesalius, A.

Van de Velde, A. J. J.; *see* Vesalius, A.

Vangensten, C. L.; *see* Leonardo da Vinci.

Vesalius, Andreas: Die anatomischen Tafeln des Jost de Negker [Jobst de Necker] 1539 mit 6 Tafeln und 2 Abbildungen im Text. Herausgegeben von . . . Karl Sudhoff und . . . Max Geisberg. München, Hugo Schmidt, [1928], 5 p. l., 6 tables in facsimile, loosely attached to cardboard backs, measuring 55 by 40.3 cm.
Copies: CSt-L; CtY-M; MiU; NNN; O'M; Waller.

———: Andreae Vesalii Bruxellensis Icones Anatomicae. Ediderunt academia medicinae nova-eboracensis et bibliotheca universitatis monacensis, 1934. 189 ll., illus. (Dated 1934 but published in 1935.)
Note: The greater part of this work cannot be considered as a facsimile since many of the illustrations were reprinted from the original blocks of the 1543 "Fabrica." Illustrations from the "Tabulae sex" and from the "Venesection letter" were reproduced in facsimile as also about 50 illustrations from the "Fabrica" because blocks were not found for them. The principal editors were Drs. S. W. Lambert, Willy Wiegand, and Archibald Malloch.
Copies: CSmH; CSt-L; CU-M; CaM-O; CtY-M; DLC; DSG; LNT-M; MdBW; MiU; MnU; NNN; OClCM; O'M; PPC; Waller.

———: Des Andreas Vesalius sechs anatomische Tafeln vom Jahre 1538 in Lichtdruck neu herausgegeben [ed. by] Moriz Hall und Karl Sudhoff. Leipzig, Barth, 1920. Folio, 12 pp., 6 facs. pl.
Note: Reproduction of a 3/4 size edition from the Library of St. Mark in Venice.
Copies: CSt-L; CU-M; CtY-M; DSG; ICJ; MdBW; MiU; NNN; O'M; PPC; Waller.

———: The Epitome of Andreas Vesalius. Tr. from the Latin with Preface and Introduction by L. R. Lind . . . With Anatomical Notes by C. W. Asling . . . and a foreword by the late Logan Clendening. New York, The Macmillan Co., 1949. xxxvi, 1 l., 103 pp., and facsimile of the complete Latin text and woodcuts, (13 ll).
Note: Publication no. 21, Historical Library, Yale Medical Library.
Copies: CSt-L; CU-M; CtY-M; DLC; DSG; MdBW; MBM; MiU; MnRM; MnU; NNN; OClCM; O'M; PPC; Sg; Waller; Wellcome.

———: Het Epitome . . . Brugghe, 1569. In Van de Velde, A. J. J.: Het Epitome von Vesalius enzijn drie Nederlandsche uitgaven. Brussel, Paleis der Academiën, 1947. 26 pp., 8 ll., 103 pp., 2 ll. (K. Vlaamsche Academie voor Geneeskunde van Belgie. Verhandelingen, 1947, v. 9, no. 1).
Copies: CSt-L; DLC; DSG; NNN; O'M; Sg; Waller.

———: The Illustrations from the Works of Andreas Vesalius of Brussels. With Annotations and Translations, a Discussion of the Plates and Their Background, Authorship and Influence, and a Biographic Sketch of Vesalius by J. B. de C. M. Saunders . . . and Charles D. O'Malley . . . Cleveland and New York, The World Publishing Company [1950]. 248 pp., 2 l., illus.

Note: The anatomical illustrations in facsimile have been reproduced from Andreae Vesalii Bruxellensis Icones Anatomicae, published in 1934 jointly by the Library of the University of Munich and the New York Academy of Medicine (History of Medicine Series No. 3). 73 of the 96 plates in this reproduction contain the illustrations from the "Fabrica." The other plates are from the Epitome (1543), his "Venesection Letter" (1539), and his Tabulae Sex (1538).

Copies: CSt-L; CU-M; CaM-O; CtY-M; DLC; DSG; LNT-M; MdBW; MBM; MiU; MnRM; MnU; NNN; O'M; PPC; Sg; Waller; Wellcome.

———: A Prelude to Modern Science, Being a Discussion of the History, Sources and Circumstances of the Tabulae Anatomicae Sex of Vesalius by Charles Singer and C. Rabin. Cambridge, [Eng.] Publ. for the Wellcome Historical Medical Museum at the University Press, 1946. lxxxvi, 58 pp., illus. facs. (Publications of the Wellcome Historical Medical Museum. New ser., no. 1).

Note: The "six tables" are reproduced to about 1/2 diameter. There is a full translation with an extensive commentary.

Copies: CSmH; CSt-L; CU-M; CaM-O; CtY-M; DSG; MdBW; MBM; MiU; MnRM; MnU; NNN; O'M; PPC; Sg; Waller; Wellcome.

———: Tabulae anatomicae sex. The Six Anatomical Tables of Andrew Vesalius. Venice, B. Vitalis, Venetiis sumptibus Joannis Stephani Calcarensis, 1538. London, Privately printed for Sir W. Sterling-Maxwell, 1874. Atlas fol., 6 l., 6 pl. and t. p.

Note: Besides the St. Mark's copy the only known set of the original tables is the one now in the University of Glasgow Library. This set was formerly owned by Sir William Sterling-Maxwell. In 1874 he published a facsimile edition of 30 copies in full size (as above).

Copies: CaM-O; CtY-M; DSG; NNN; Sg; Wellcome.

Viets, H. R.; *see* Thacher, J.

Vigevano, Guido de; *see* Mondino dei Luzzi.

da Vinci, Leonardo; *see* Leonardo da Vinci.

Vine, G.; *see* Johannes Jacobi.

Violo, G.; *see* Mondino dei Luzzi.

Wagner, P. M.; *see* Turner, William.

Des Walahfrid von der Reichenau Hortulus: Gedichte über die Kräuter seines Klostergartens vom Jahre 827. Wiedergabe des ersten Wiener Druckes vom

Jahre 1510. Eingeleitet und medizinisch, botanisch und druckgeschichtlich Gewürdigt von Karl Sudhoff, H. Marzell, E. Weil. Münchener Beiträge zur Geschichte und Literatur der Naturwissenschaften und Medizin. I. Sonderheft. München, Verlag der Münchner Drucke, 1926.

Copy: MdBW.

[Wateson, George]: The Cures of the Diseased in Remote Regions. Preventing Mortalitie Incident in Forraine Attempts of the English Nation. London, F. K. for H. L., 1598. Reproduced in facsimile with introduction and notes by Charles Singer. Oxford, Clarendon Press, 1915. 6 ll., 28 pp., 3 ll.

Note: Attributed by Charles Singer to George Whetstone.

Copies: CSmH; CSt-L; CU-M; CtY-M; DSG; MdBW; MBM; MiU; NNN; PPC; St.B.

Watt, Robert, 1774-1819: A bibliography of Robert Watt, M. D. . . . with a facsimile edition of his *Catalogue of Medical Books* and with a preliminary Essay on his works . . . by Francesco Cordasco . . . New York, Wm. F. Kelleher, 1950. 27 pp., facsim. 68 pp., 2 ll. port.

Note: Limited edition of 250 copies. Watt's *Catalogue of Medical Books* lists some 1000 publications. Watt also compiled the monumental Bibliotheca Britannica (1824), 4 v.

Copies: CU-M; CtY-M; DLC; DSG; MdBW; MnRM; MnU.

Weddell, George; *see* Arcana Fairfaxiana Manuscripta.

Wellcome Historical Medical Museum; *see* Arderne, J.; Vesalius, A.

Wessely, C.; *see* Dioscorides.

Whetstone, G.; *see* Wateson, G.

White, B.; *see* Gifford, G.

Wickersheimer, E.; *see* Mondino dei Luzzi.

Widmann, Johannes, 1440-1524: De pustulis et morbo qui vulgo mal de franzos appelatur, Strassburg and Rome, 1497. In: Sudhoff, Karl: The Earliest Printed Literature on Syphilis . . . pp. 233-349 and 347-352. (q. v.)

Copies: CSmH; CU-M; CaM-O; CtY-M; DLC; DSG; MdBW; MBM; MH-M; MiU; MnRM; NNN; OClCM; PPC; Waller; Wellcome.

Wiegand, W.; *see* Vesalius, A.

Willis, R.; *see* Harvey, W.

Winslow, C.-E. A.; *see* Massachusetts. Sanitary Commission.

Winthrop; *see* Stafford, E.

Withering, William, 1741-1799: An Account of the Foxglove and Some of Its Medical Uses, 1785. A facsimile reprint. London, The Broomsleigh Press, 1949. 3 p. l., [v]-*xx*, 1 l., 207 pp.

Note: Limited to 250 copies.

Copies: CU-M; CtY-M; DSG; LNT-M; MdBW; MBM; MnRM.

Wreszinski, Walter, 1880 ed.: [Die Medizin der alten Aegypter]. Leipzig, Hinrichs, 1909-1913. 3 v.

Note: Bibliographical details are given under main entries, q. v. Bd. 1: Der grosse medizinische Papyrus des Berliner Museums (*see* under Brugsch); Bd. 2: Der Londoner medizinische Papyrus und der Papyrus Hearst in Transkription (*see* under London); Bd. 3: Der Papyrus Ebers.

Yale Medical Library; *see* Arderne, J.

Zoepfl, F.; *see* Ellenbog, Ulrich.

MEDICO-HISTORICAL NEWS AND ACTIVITIES

CORRESPONDENCE AND REPORTS

THE MINUTES OF THE JOHNS HOPKINS MEDICAL HISTORY CLUB, 1890 TO 1894.

Reflections on the Role of the Organization *

VICTOR A. McKUSICK

The minutes of the first 26 meetings of this society, 1890 to 1894, have recently come to light. They were among the belongings of Dr. J. M. T. Finney who was secretary for a number of years in the early days. They provide an opportunity for constructive comparison of the organization at its inception and now. We read (Fig. 1):

> The first meeting of the Historical Club, Johns Hopkins Hospital, was held in the Hospital Library November 10, 1890. Dr. William Osler called the meeting to order and nominated Dr. William Welch as president and Dr. D. Meredith Reese as secretary. Their nomination was seconded by Dr. H. M. Hurd, and the gentlemen were duly elected and installed in their respective offices. Dr. Welch then took the chair and announced the programme for the evening which was as follows:
>
> Dr. Welch: Opening Address
>
> Dr. Osler: American Medical Classics
> I. Dr. John Morgan
>
> Dr. Kelly: Early obstetrical literature with some plates.
>
> 35 members present. Meeting adjourned at 10:15 o'clock P. M.
>
> Signed:
>
> D. Meredith Reese,
> *Secretary*

Attendance averaged about 35 persons. This must have represented a sizable segment of the staff of the hospital. Remember, the Medical School did not open until the last of these four years. It is recorded that 80 persons attended the meeting of October 16, 1893, which was held in commemoration of the centenary of the

* Read at a meeting of the Johns Hopkins Medical History Club, November 24, 1952. The story of the Johns Hopkins Medical History Club from 1890 to 1905 has been told by Dr. W. G. MacCallum (*Bull. Hist. Med.* 10:513, 1941). The announcements of its founding and of the meetings of the early years were published in the *Bulletin of the Johns Hopkins Hospital* beginning with volume 1, p. 116, 1890.

death of John Hunter. Furthermore there was sufficient interest and worthwhile material for presentation that the club met monthly during the academic year with six to eight meetings in all.

What were the programs like in the early days?

At the beginning there was a general plan to devote one year, 1891-1892, to ancient Greek medicine, the following year to Galenic medicine, and, so on, covering the history of medicine more or less systematically over the course of a few years.

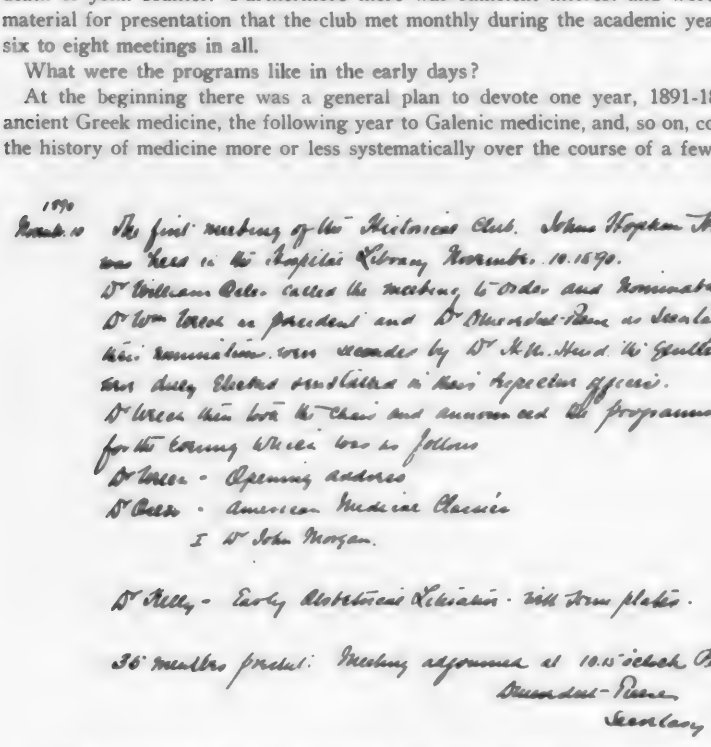

Fig. 1. Minutes of the First Meeting of the Johns Hopkins Medical History Club.

This was to be the skeleton along with which other material would be presented. The year devoted to ancient Greek medicine appears to have been highly successful and a propitious start was made on Galen on March 13, 1893 under which date we read: "Dr. Welch gave an account of the medical writers immediately preceding Galen and of the different sects and guilds which were prominent at the time. He then discussed the effects of the writings of Galen upon the whole science of medicine, which was both interesting and enlightening." But the scheme for systematization collapsed thereafter.

The other papers of these early meetings fall into four categories—with much overlap:

1. Biography—clinical, professional or scientific.
2. The history of the specialties.
3. Bibliography.
4. General topics which defy exact classification.

To go back a bit there were fifteen papers on ancient Greek medicine of which I might mention these:

Dr. Welch: Pre-Hippocratic Greek Medicine
General Remarks on Hippocrates
The Schools of Cos and Cnidos
Dr. Osler: The Aphorisms of Hippocrates
The Medicine of Plato
Dr. Hurd: Medicine in Homer
Dr. Henry M. Thomas, Sr., the neurologist: Hippocrates on Nervous Diseases.
Dr. Councilman, the pathologist, one of the "Welch Rabbits":
Hippocrates on Air, Water, and Places.
Dr. Booker, the pediatrician: Hippocrates and the Diseases of Children.
Dr. Hunter Robb, resident gynecologist: Hippocrates and the Diseases of Women.
Dr. Finney: The Surgery of Hippocrates,
Dr. Wm. Brewster Platt, chief surgeon at Bay View as City Hospitals were then called: Hippocrates on Ulcers, Fistulae, Hemorrhoids, Injuries of the Head, etcetera.
Dr. Frank Smith, Sr: The Influence of the Writings of Aristotle on Medicine, *and so on*

The biographical papers were among the best. Osler read some of his most familiar biographical essays before the society in this first four-year period. He proposed to review a series of early American Medical Classics. Superficially these papers might be considered more appropriately bibliographical. I think, however, you will agree that Osler placed the emphasis on the man rather than the book. Osler read seven of these essays in the first four years:

John Morgan, On the Institution of Medical Schools in America, 1765.
Thomas Bond, Plan for Clinical Institution at the Pennsylvania Hospital, 1766.
John Jones, Manual of Surgery, 1776.
Bard, On Diphtheria
Nathan Smith, On Typhoid Fever
William Beaumont, On Digestion
Matthew Carey, On Malignant Fever, 1793.

Finney gave a paper at the second meeting on John Archer, first medical graduate in the U. S. Dr. Finney's grandfather was Presbyterian minister in Churchville in Harford County, Maryland. John Archer was one of his parishioners; hence Dr. Finney's interest.

Dr. Hunter Robb, the resident gynecologist, in whose room in the Administration Building Osler wrote his textbook in 1891, seemed to have been fascinated by famous French midwives and presented four papers on individual members of this specialty.

John Shaw Billings spoke on John Arderne, early English writer on surgery; Randolph, the ophthalmologist, on Prof. Albrecht von Graefe; Platt, the Bay View surgeon, on Lawrence Heister and Baron Larrey.

In the area of the history of specialties we might mention Bloodgood (then Resident Surgeon), on the history of trephining; Kelly, on the history of lithotomy in the female; MacKenzie, the otolaryngologist, on the ancient history of rhinoscopy.

What Osler was to the papers of biographical nature Kelly was to bibliography. Scarcely a meeting passed but Dr. Kelly brought some very valuable new acquisition of his. He would tell something about its author and its contents. He frequently gave the books to the hospital library or left in the library a list of books which could be borrowed from his personal collection. The books he gave over the years constitute one of the most valuable sections of the Welch Library collection.

The Regular Meeting of the

HISTORICAL CLUB OF THE JOHNS HOPKINS HOSPITAL

will be held at the Hospital on Monday, April 9th, 1894, at 8 o'clock p. m.

PROGRAMME.

1. *Communication* ..... DR. OSLER.
2. *Madame Boivin* ..... DR. ROBB.
3. *Baron Von Langenbeck, Surgeon-General of the German Army, Prof. of Surgery in the University of Berlin* ..... DR. PLATT.
4. *The Ars Moriendi issued by the Holbein Society* ..... DR. KELLY.

J. M. T. FINNEY, Secretary.

FIG. 2. Announcement of a Meeting in 1894.

Welch talked on old works in pathological anatomy and other bibliographic subjects; Billings on old books illustrating the operation for stone; Harry Lafleur, Osler's first resident, described the 1681 edition of Glisson's *De Anatomia Hepatis*; and so on.

As general papers we might mention the following:

Billings: The Royal Touch for Scrofula in England.
Billings: The Medicine of Shakespeare
C. C. Bombaugh: The Plagues and Pestilences of the Old Testament.
Henry Barton Jacobs: An Old English Medical Poem by Abraham Cowley.

As you see from this partial enumeration, the Society was very active indeed in its early years. There was seldom the necessity for exogenous stimulation by guest speakers. I found reference to only three outside speakers during the four years.

The minutes were recorded last for the meeting of March 12, 1894. Beginning with the following meeting postal card announcements were distributed (Fig. 2).

It would appear that Dr. Finney felt these were adequate records of the Club's activities. It seems very possible that these cards were prepared for the great majority of the meetings since 1894. A collection of them would be very desirable as a record of our organization.

What was the secret of the outstanding success of the Historical Club from the very beginning? One might with some justification say that the early staff had more time for such things. But there were other more important reasons:

1. Each of the Big Four was active in the organization. Welch, Kelly and Osler you have heard from already. Dr. Halsted was president in the last of the four years I am reviewing. With these men engaging in its activities enthusiastically, along with men like Billings and Hurd, it is little wonder that the society prospered.

The relative youth of the members did not deter them from active participation in the society's activities. One frequently hears young physicians state that they intend to leave medical history for their dotage or at least their retirement. One gets the impression that younger physicians are ashamed to air their views on philosophical aspects of medicine in public or in print. Note that at the time of the founding of our society Osler was 41, Welch 40, Kelly 32, Halsted 38, Hurd 47, and Billings 52 years of age.

2. The times must be considered. Texts like those of Garrison, Castiglioni, and others were not yet written and the curiosity of the early Hopkins physicians about the history of their profession could be satisfied best by these monthly get-togethers. Furthermore, medical history, like many other fields in medicine, had been relatively little cultivated before the turn of the century. There was a wealth of interesting and significant material for original *Arbeiten*.

3. A third source of strength of the early society was the diversified nature of its programs and particularly, perhaps, the conspicuous clinical orientation of many of its programs. Clinical biography and the histories of specialties constituted perhaps half their programs. We would like to encourage these types of papers in our present day programs, i. e., papers prepared by the persons who are in the best position to evaluate the professional accomplishment of the subject or best prepared to trace the development of a specialty, or of techniques and concepts used by a specialty. Scarcely anything can be more stimulating and enlightening, to young physicians in particular, than to study in complete detail the life and works of one of our professional ancestors. Such papers make good listening and reading, too. In the area of the history of the specialties there is an abundance of material which would be of value to those working in the field and of interest to this society. The fact that much has been written on the subject is no reason why it should not be of interest to this group. To be of value the papers need not be of highly sophisticated conceptual or analytical nature. We thought that by meeting occasionally in the hospital, as we are this evening, efforts along the lines I mention might perhaps be encouraged. No reflection is intended on the sophisticated papers which will be presented later this evening. Our aim is that the medical history club should continue to contribute as significantly to the professional and intellectual life of the Johns Hopkins Medical Institutions as it did to that of the Hospital in its early days.

ANNOUNCEMENTS

AMERICAN ASSOCIATION OF THE HISTORY OF MEDICINE

Awards of Medals

At the twenty-sixth annual meeting in Columbus, Ohio, April 10-12, announcement was made of the following awards:

The WILLIAM OSLER MEDAL for the best student essay submitted was awarded to: Thomas Edward Moore, Jr., of Harvard Medical School, for his essay on "The Early Years of the Harvard Medical School: Its Founding and Curriculum, 1782-1810." Honorable mention with one year's subscription to the *Bulletin*, went to: David C. White of Tufts College Medical School for his essay on "The Discovery of Chiropractic and the Evolution of Its Largest School," and to Jean Donald Wilson of Southwestern Medical School, University of Texas, for his essay on "Mineral Wells, Hydrotherapy Center of the Old Southwest."

The WILLIAM H. WELCH MEDAL was awarded to Dr. Erwin H. Ackerknecht, Professor of the History of Medicine at the University of Wisconsin.

CONSTITUENT SOCIETIES

Barlow Society for the History of Medicine

The thirteenth George Dock Lecture is to be held on April 23, 1953, at the Los Angeles County Medical Association. Mrs. Stafford Warren will be Dock Lecturer and will speak on "Medical Personalities in Pueblo and City Los Angeles, 1843-1909."

College of Physicians of Philadelphia, Section on Medical History

A meeting has been announced for March 26, 1953, with the following program: Thomas W. Murrel (by invitation), "The Exodus of the Southern Medical Students from Philadelphia in 1859"; Chester D. Bradley (by invitation), "Dr. Craven and the Shackling of Jefferson Davis."

History of Medicine Society of Tulane University

The History of Medicine Society concluded a very active 19th Chronological Year and 24th Academic Year (because of double classes during some war years) in June of 1952. The following are the titles and authors of papers presented to the History of Medicine Society at Tulane University for the year 1951-1952:

1. "Landmarks in Renal Physiology," Dr. Thomas Findlay, Professor of Clinical Medicine, Ochsner Foundation. October 19, 1951.
* 2. "Dr. I. I. Lemann," John L. Ochsner, member. November 3, 1951.

* Received the B. B. Weinstein Award for the paper showing the most original research.

** 3. "Sir James Mackenzie," James McCutchon, member. November 16, 1951.
4. "Early Indian Medicine," Dr. Praven Bhatt, graduate member. December 14, 1951.
5. "Diabetes and the Evolution of Its Treatment," Dr. Carl S. Nadler, Jr., Instructor, Department of Medicine, Tulane University, January 11, 1952.
6. "Problems in Development of Modern Medicine," James L. Reynolds, member. January 25, 1952.
7. "Dr. Seale Harris," Gerald Woodruff, member. February 8, 1952.
8. "Animal Magnetism," James Watkins, member. February 22, 1952.
*** 9. "Charles F. Craig—The Diminutive Dynamo," Lloyd McLaughlin, member. March 7, 1952.
10. "Joseph Priestley," Edward Leverich, member. March 21, 1952.
11. "Sir Thomas Browne," Phanor L. Perot, Jr., member. April 25, 1952.
12. "Letters of a Medical Student in 1852," Jack Thielen. May 9, 1952.
13. "Poet Physicians," Dr. B. Bernard Weinstein, Associate Professor, Department of Obstetrics and Gynecology, Tulane University. May 19, 1952.

The Banquet Meeting was attended by some 70 members and was the occasion for the presentation of the Annual Society Awards and for an address by the retiring president, John L. Ochsner, and a message of greeting from the new president, Frank Lorio, Jr., who will preside during the 1952-53 session.

B. Bernard Weinstein, M. D.
Faculty Advisor

The Johns Hopkins Medical History Club

At a meeting held on March 16, 1953, the following papers were presented: "John Hunter, Surgeon: Some Unpublished Hunter Letters," Lloyd G. Stevenson; "'Merrem's Youthful Dream'—Experimental Pylorectomy around 1800," Owsei Temkin.

Survey of the Teaching of the History of Medicine in American and Canadian Medical Schools

Dr. David A. Tucker, Jr., Chairman of the Committee to Survey the Teaching of the History of Medicine in American and Canadian Medical Schools, the report of which was published in this *Bulletin*, 1952, vol. 26, pp. 561-578, has sent us the following communication:

My attention has just been called to certain additions and corrections which should be made to the report as published in the recent number of the *Bulletin*.

1. Dr. W. W. Francis, McGill University, Montreal, writes me that although it is not announced in the Bulletin of McGill, he gives a course of twelve lectures to the first year class and four seminars in the honor physiology course.

** Received the I. I. Lemann Award for the best presentation.
*** Received the Rudolph Matas Award for the best paper presented by a student member for this school year.

2. In the 1952 Bulletin of The Bowman Gray School of Medicine of Wake Forest College at Winston-Salem, N. C., on page 46 the following statement occurs:

> History of Medicine.
>
> This is a course dealing with significant features in the history of the arts and sciences of medicine. Primitive, archaic, Egypto-Babylonian, Greek, medieval and Renaissance medicine is reviewed as a background for consideration of more modern concepts. The influence of great physicians of the seventeenth to nineteenth centuries is discussed, and the evolution of American medicine is revealed by reference to the philosophies and discoveries of those of the past.

In the 1952 Bulletin of Duke University School of Medicine the following statement is found on page 17:

> Trent Prize in the History of Medicine
>
> An annual award of fifty dollars for the best original and publishable essay on any topic in the history of medicine or its allied sciences by a Duke medical student or house-officer has been established by Mrs. J. C. Trent in memory of the late Dr. Josiah C. Trent, who had been Assistant Professor of Surgery in Charge of Thoracic Surgery at Duke, and who had greatly increased the interest of the staff and students in medical history. Essays should be submitted to Dr. Joseph E. Markes, the Chairman of the Trent Award Committee, by April 1 of the year in which they are to be considered.
>
> The J. C. Trent Medical History Society, open to all Duke medical students and house officers, meets the second Tuesday of each month, either for informal discussions among its members or for a guest lecture, to which the public is welcomed. The Society also sponsors the J. C. Trent Memorial Lecture, established by Mrs. Trent.

NATIONAL NEWS

Armed Forces

The Armed Forces Medical Library is devoting its March exhibit to Dr. William Withering and his work. The March exhibit at the Medical Museum of the Armed Forces Institute of Pathology deals with "Herbs in Medicine, Past and Present." Both exhibits will feature Withering's work on foxglove. (Armed Forces Medical Library *News*, March, 1953.)

Baltimore

On March 5, 1953, Dr. Esmond R. Long, Director of the Henry Phipps Institute in Philadelphia, delivered the Hideyo Noguchi Lecture for 1953 at the Institute of the History of Medicine. He spoke on "Tuberculosis in Modern Society." The Hideyo Noguchi Lectureship in the History of Medicine was established in 1929 through a gift by the late Dr. Emanuel Libman of New York to the Johns Hopkins University.

Personal

Dr. George Rosen, Professor of Public Health Education, Columbia University School of Public Health, has been elected Honorary President of the Osler Society of the University of Western Ontario, a student society for the study of the history of medicine. Dr. Rosen addressed the annual banquet of the Society on March 11, 1953. The subject of his address was "Economic and Social Policy in the Development of Public Health." On the occassion of his visit, Dr. Rosen also attended the Staff Seminar and discussed with the staff the nature and problems of public health education.

Dr. Edward Holman Skinner, special lecturer in the history of medicine and radiology of the Kansas University Medical Center, died on January 11, 1953, at the age of 72. Dr. Skinner figured prominently at the 1949 and 1952 meetings of the American Association of the History of Medicine of which he was an active member.

Dr. Waller O. Bullock died suddenly on January 23, 1953, at his home in Lexington, Kentucky. Dr. Bullock was born on November 28, 1875, and was a graduate of the University of Virginia, Department of Medicine. In 1949 he was chairman of the program committee for the twenty-second annual meeting of the American Association of the History of Medicine in Lexington, Kentucky.

NEWS FROM ABROAD

International Congress for the History of Science

The Seventh International Congress for the History of Science meeting at Jerusalem, August 4-11, 1953, will have a section on the history of medicine for which 22 papers have been announced in a recent circular.

Sweden

The establishment of a national museum of the history of medicine is being considered by a committee appointed by the Swedish Medical Society. The museum should also promote research and teaching. It has been suggested that the museum be located in the oldest part of the Serafimer Hospital which received its first patient on October 30, 1752. This hospital has played an important role as a center of healing and learning and through its connection with many outstanding medical men in the country (*see J. A. M. A.*, Feb. 7, 1953, vol. 151, p. 495).

Death

Dr. Walter von Brunn died in Leipzig on December 21, 1952, in his seventy-seventh year. Born in 1876, the son of the anatomist Albert von Brunn, he practised surgery until 1918 when he lost his right arm in consequence of a septic infection. He devoted himself to the history of medicine which he taught in Rostock until 1934, and then in Leipzig, as successor of Dr. Henry E. Sigerist, until his retirement, July 31, 1950.

BOOK REVIEWS

PAUL DIEPGEN. *Geschichte der Medizin; die historische Entwicklung der Heilkunde und des ärztlichen Lebens.* 2. Band, 1. Hälfte: Von der Medizin der Aufklärung bis zur Begründung der Zellularpathologie (ca. 1740-ca. 1858). Berlin: Walter de Gruyter & Co., 1951. vii + 271 pp. Ill. D. M. 24.

Paul Diepgen does not need an introduction to the readers of the *Bulletin*. More than forty years ago he made his debut in medical history. Since then he has become one of the eminent medical historians of our days. Those who have read his previous works will find, however, that his present work is not his best. This book is the second volume of a planned 3-volume set of medical history (1 Bd., 1949) which is not an entirely new work. It is essentially an expansion and streamlined version of Diepgen's four small booklets of the same title which reached several editions between 1913 and 1932 in the *Sammlung Göschen* and were even translated into Spanish.

In its new expansion the work has lost some of the original charm of the Göschen booklets. Though the titlepage does not clearly say so, the preface of the book explicitly states that it is not to be used as a reference work. Indeed, it could hardly serve as such since it is free of the "ballast of annotations". It intends to be just a popular treatise of medical history for the medical profession of post-war Germany, though it is hardly a book to be read for pleasure.

The time-span of this second volume is just about a century. The author apportions 85 pages of his book to 90 years, and 145 pages to the subsequent 28 years. A thorough scrutiny of the volume appears to show that this particular century eluded the author in spite of his serious attempt to capture the essence and the spirit of the golden age of medicine. His endeavor to write a history of medical ideas rather than one of medical men and nationalities is a laudable one, though, in its present form of execution, this plan resulted in dismemberment of the historical personalities, a surgeon's body being cut up into as many parts and being scattered into as many chapters of subjects in the book as it was convenient to classify his divers activities of a life time.

Since the author is German, and his sources are chiefly German, and his prospective readers are German, no wonder that the achievements of even the lesser known German scientists and the local events of German history and the provincial conditions of German society are given a wide seat. In a German book such nationalism might be forgiven even though not commended. But the book's tendency to overwrite everything German is coupled with a certain parsimony in unveiling the foreign side of the picture, undoubtedly limiting the work's appeal on the international book-mart.

While we find a long series of lesser starlets from the period of German romanticism and "Aufklärung"—some of them not to be found even in such large reference works as Puschmann's *Handbuch der Geschichte der Medizin* (Jena, 1903)—we miss in Diepgen's book many able foreign practitioners of the period

(e. g., the Americans Physick, Mott, Dudley, Parker, Nathan Smith, Waterhouse, Wright Post, James Lloyd, Jonathan Knight, Barton, Mettauer, Thacher, Dunglison, Guthrie, Caspar Wistar, Silliman, Buck, Pancoast, John Watson, Hamilton, John Collins Warren, etc. etc.).

Another disadvantage of Diepgen's technic of ideological historiography is that a man's historical and scientific value might be easily distorted because he is apt to be treated as an illustration to a particular passage of the text only. (See for instance the references on Jean-Louis Petit, Guillaume Dupuytren, Pierre-Joseph Desault, Georg Friedrich Louis Stromeyer, etc.) Thereby, a general surgeon might become a mere otologist; another might be exposed as the inventor of a special bandage while his merits are much greater in the foundation of functional surgery; a third might be called a great surgeon who introduced a new orthopedic technic while his merits are much greater on the field of military surgery.

Because of this peculiarity of technic, I feel heavily uneasy while reviewing the familiar 18th and 19th centuries with Diepgen's book in my hand. I feel like the traveller in a train whose windows play tricks on his eyes. Only the time-table and the signs over the whistle-stops assure me that I am passing through familiar land which, owing to the strange refraction by the window-glass, I would be unable to fully recognize.

Certain subjects are treated very briefly, while others are entirely missing. There is little said about social pathology, welfare and social work (see especially the subjects Alcoholism; Industrial Hygiene & Medicine; Hospitals). It is regrettable that the work is disfigured by a number of coarse inaccuracies in the spelling of personal names, and in biographical and other dates. These spots are too many to be taken for mere printer's errors (e. g., "George" throughout, for the French Georges; "Chrichton" for Crichton; "Fothergild" for Fothergill; "Baumont for Beaumont, and many inconsistencies in the use of the multiple Christian names of foreign authors).

The two indices at the end of the volume are below the standard requirements for indexing scientific books. The first index is a mixture of personal and geographical nouns, most of the latter being without any justification whatsoever for their inclusion (see, for instance, Buda 196, Budapest 196, and Pest 196 f; see also Philadelphia 29 in the subject index). The "Sachregister" or subject index is more or less just a "Stichwortregister," and not a "Schlagwortregister" (compare, for instance, all the references listed under the terms Geschichte der Medizin, or Malaria). In their present form these indices detract much from the usefulness of the book. Their specific German alphabetization, with the insertion of SCH and ST after S, is a disadvantage to any foreign reader.

It is the duty of the writers of scientific books that they should not consider their composing work finished with the last sentence of the text. The job of indexing and the preparation of the table of contents should never be left to inexperienced students or clerks. Since the index is the only key to the treasures hidden in the text, only the master of the subject matter himself should attempt to forge the key.

CLAUDIUS F. MAYER

JUAN B. LASTRES. *Historia de la Medicina Peruana*, Vol. I, La Medicina Incaica. Lima: University of San Marcos, 1951. 352 pp. Ill.

Dr. Lastres' 3 volume History of Peruvian Medicine forms Volume V of a collaborative History of the University of San Marcos. The History of Medicine is divided into The Pre-Inca and Inca period, The Colonial Era, and The Republic.

This first volume is based on the most important sources in Spanish records and those of Peruvians such as Garcilaso de la Vega, Huaman Poma de Ayala, and Cristobal de Molina. Ceramics and folklore provide the remainder, since the Quechuas and Aymaras lacked a written language. This is not a political history, but a history of biological data relating to medicine, curative art, and folklore. Military chroniclers, missionaries, and naturalists in describing the Indian, never discussed his customs, his attitude to magic, the work of the Healers and their miraculous cures.

Pre-Inca cultures were well advanced as indicated by such relics as bridges, irrigation canals, and aqueducts. They had tribal and community organizations on which the Incas later based their socialized Empire. This Inca Empire extended from Ecuador to Peru and Chile, Bolivia, and Tucuman in Argentina. All these have identical invocations to Viracocha, the Creator, who had a shrine at Pachacamac on the coast and another in Andean Cuzco.

With them illness was a result of sin, to be cured by confession and purification taking place at both the local level and at the great annual feast called Citua at Cuzco. This was a sort of collective prophylaxis against illness, with ceremonial rites at flood time, assuming that corporal ills accompanied change of seasons. The people bathed themselves and their arms in rivers which eventually flow into the sea. The priests scattered cornmeal over thresholds to protect the houses. Flocks were sacrificed and their blood, mixed with cornmeal, was eaten as a sacrament to purify the people internally. They must abstain from salt and hot peppers and remain continent. They prayed for health, prosperity, fertility, and security, with special prayers to Sun, Moon, Thunder, Lightning for the Inca, their Lord.

Ceramic relics of most value are anthropomorphic water jars. These represent deformities, skin diseases, and punitive mutilations of lips, noses and feet. Artificial deformation of the cranium by bandaging an infant's head up to its third year was much older than any recorded history in Peru. Ears and nose were pierced for large rings as part of the ceremonial in a child's growth, with special rites at puberty. Phallic symbols are profusely represented in their art. Love philtres and aphrodisiacs were used. They had a horror of incest, and specific degrees of consanguinity for marriage were regulated by law.

Burial mounds disclose embalmed bodies covered with richly colored embroidered cloths and surrounded by personal effects. The cult of the dead was founded in animistic beliefs in the influence of the spirits of the departed over the living. Mummies of past Incas were carried in procession at Cuzco at the great religious festivals. Prayers were chanted to Viracocha for the repose of the soul and that the body might not decay. To prevent decay they removed entrails and embalmed the body with bituminous balsams. In the dry coastal plain or the cold Andes, bodies were preserved several hundred years.

The Mago or Medicine Man belonged to a definite caste with transmitted formulas, rites, and training. There were hierarchies of priests to invoke various deities for healing and to act as confessors; there were diviners who diagnosed by entrails of sacrificed animals or by heaps of scattered corn. There were also poisoners and illegal practitioners.

Surgery was instinctive: immobilization of fractured bones, plastering flesh wounds, use of plants as astringents. Trephining of the skull was the most important deliberate surgery, and excites the interest of the anthropologist and the surgeon for a demonstration of skilled technique. Circular openings were usually accomplished by boring a chain of holes with a file and then breaking the bridges between them. The square openings were produced by straight cuts with the knife sloped so that the cut was beveled. This was to avoid breaking through the dura mater. Instruments used were of obsidian or bronze. The reasons for trephining are uncertain: perhaps to remedy an injury to the skull, but more likely as a means of relieving demonic ills such as dizziness and mental disturbance.

The Indians described symptoms rather than diseases. They considered epidemics a punishment for the collective sins of the people. Malaria, described as chills and fever, existed long before the Conquest; exanthematic typhus followed wars and the putrefaction of unburied dead. Mumps and goitre and verruga were endemic. Respiratory diseases have terms in their vocabulary. Pellagra also existed, due to a too exclusive diet of maize. The American origin of syphilis is still contested, but long bones and skulls found in pre-Columbian mounds have lesions that might be luetic. X-ray examination verifies this for long bones. There are Quechua and Aymara legends of venereal disease with characteristics of syphilis.

Anesthesia was induced with strong potions of chicha, a fermented maize beverage. Analgesics and hypnotics, such as coca and the daturas, were used by the Indian to make him forget harsh reality as well as to deaden pain. Coca was restricted to the Inca and nobles till after the Conquest. It diminishes hunger and fatigue and its leaves mixed with lime have been chewed from a very ancient period.

Obstetrics was practiced by magic. Prayers and sacrifices for successful delivery were offered to rainbow, moon, and tribal totem. Both man and wife must fast and confess to eliminate sins which might anger the gods. There were no midwives. Wizards used incantations or passed special amulets over the body of the woman, who usually returned to her duties promptly after parturition. Infants were nursed thrice daily, and the mother must not cohabit while nursing. Specific herb concoctions stimulated the flow of milk, and special ceremonials announced weaning.

Herbalists knew the therapeutic and poisonous uses of numberless plants. Itinerant peddlers sold herbs, animal fats, and amulets. The 50 or more known medicinal plants included astringents, diaphoretics, purgatives, sedatives, and aphrodisiacs. Oral tradition favors the pre-Columbian knowledge of the curative value of chinchona, the fever-bark, for intermittent fever. Natives concealed this use from the Spanish due to hostility. Indians of Loxa in Ecuador used it macerated in hot water or chicha as early as 1378.

The Mago used superstitition added to herb remedies, carrying a stock of finger

nails, hair, bones, and teeth. Drugs presumably had no intrinsic properties, only the presence of a spirit that infused them. However, the Healer continued to use certain drugs that had previously proved effective. They used some minerals: gold for epilepsy, silver for contusions, arsenic for ulcers, copper for boils. Animal products included doves' hearts, condor's blood, and various animal fats. Their bezoar stone came from the tapir, and they used a llama's placenta in childbirth.

Hygiene was incidental. Ceremonial bathing was for purification from sin rather than physical cleanliness. However, among the social laws of the Incas was a regulation requiring the very poor to pay as tax a measured amount of lice, which was apparently a primitive method of combatting the spread of typhus.

Psychotherapy, combined with potent drugs, was responsible for some miraculous cures. Hypnosis was produced by dancing and music; then the Mago apparently extracted harmful objects from the body of the patient, who viewing them on being waked, was cured. The primitive mentality was readily susceptible to suggestion.

GEORGIANNA SIMMONS GITTINGER

SKÚLI V. GUÐJÓNSSON: *Manneldi og heilsufar í fornöld.* Reykjavik: Ísafoldarprentsmiðja, 1949. 262 pp.

This book was originally written in Danish by a Professor, formerly of the University of Copenhagen, now at the University of Aarhus, Denmark, but Icelandic by birth and upbringing. He has long been an authority on vitamin investigations in Denmark, and this book, whose title might be translated: "Diet and Health in Old Iceland" based on the Old Norse (Old Icelandic chiefly) literature, actually starts with his questioning the source-material about diseases caused by lack of vitamins, such as rickets, lack of vitamin A, beri-beri, pellagra, scurvy (*skyr-bjúgur*), and others. Then he has an interesting chapter on other maladies and their treatment (here is his note on Hrafn Sveinbjarnarson). He admires the method of giving wounded patients onion. If the smell penetrated, it was a sign that the intestinal canal was ruptured, hence the chance of recovery was minimal. He also remarks in passing that the onions may have been a chief source of vitamins in the North. The first part ends with a note on hygiene. In the second part he deals with the sources of food: cattle, sheep, goats, swine, horses, domestic fowl, and how these animals were slaughtered. Then he discusses hunting and fishing, milk, cereals, and vegetables. A third part deals with the conservation of food. The fourth part deals with the preparation of food: meat, and sausages, milk, bread and porridge, beer and other drinks, and, lastly, the meals. In a final part he asks whence they got the vitamins: A, B_1, B_2, C, and D. The book is very well written and full of interesting information.

STEFÁN EINARSSON

DEAN PUTNAM LOCKWOOD. *Ugo Benzi.* Medieval Philosopher and Physician, 1376-1439. Chicago: University of Chicago Press, 1951. xvi + 441 pp. $8.00.

The subject of this impressive bio-bibliography—characterized by its author as "a perfect example of serendipity"—is scarcely mentioned in our major contemporary histories of medicine. Garrison, for instance, merely refers, in his bibliographic appendix, to a journal article by Castiglioni, ignoring Benzi in his text. Castiglioni himself, in his *History of Medicine*, describes Benzi as "one of the most justly celebrated Italian physicians of the fifteenth century"; but in the single, brief paragraph devoted to him does not attempt to give the reasons for Benzi's eminence.

One therefore suspects the truth to be that Ugo Benzi (Hugo Senensis, Hugh of Siena), professor of medicine and philosophy, commentator on Avicenna, Galen, and Hippocrates, author of a volume of *Consilia*, was one of those numerous historical figures whose light, glowing with exceptional brilliance for a generation or two, gradually lost its radiance as a longer and wider perspective became available. But Time's ideas of how the historical runway should be illuminated are notoriously arbitrary and capricious. One of the obvious duties of historians is to re-examine these transitory lights from time to time; to restore their former radiance, if that is indicated; to exact from them any auxiliary illumination they may still be capable of affording. In re-examining, with quite exhaustive care, the once brilliant light that was Ugo Benzi, "Prince of Philosophers and Physicians," Prof. Lockwood has succeeded in explaining Benzi's eminence in his own time, and, thus, in providing our time with by no means negligible auxiliary illumination on a period which, for one reason and another, medical historians have not often explored with comparable intensity.

Serendipity entered into these proceedings when, some twenty years ago, Prof. Lockwood, a widely known classical scholar, happened on a manuscript biography of Ugo, by his son Socino, in the Biblioteca Comunale of Ferrara. Quickly establishing the importance of his "find," which he characterizes as the earliest full and authentic biography of a physician that is known to us, Lockwood put aside the Aristotelian study on which he was engaged at the time and for the past twenty years has devoted the major part of his scholarly activity to a study of the life and works of Ugo Benzi.

This is the scope—or, rather, the organization—of his book: There are seven chapters, fifteen appendixes, eleven special indexes, and the general index. The chapters comprise an introduction (Ugo and his environment; new light on Ugo and his age from the *Vita Ugonis*; previous research); a chapter on the *Vita* (English translation, preceded by discussion of the historical value and literary quality of the *Vita*); chapters on, respectively, the "philosophical works," the works on medical theory, and those on practical medicine; a chapter on medicine and physicians in the 15th century as reflected in the *Consilia*; and a chapter on Ugo's character as a man and as physician.

The appendixes and indexes constitute the bulk—that is, over two-thirds—of the book. While they are largely devoted to documentation of the chapters, scholars in more than one discipline may find them rewarding on their own account.

The author's approach to his subject is primarily, but not exclusively, humanistic. This is not only proper but particularly serviceable, in that the physician of renown in Ugo's day was, of course, a man of many parts, medicine itself more intimately related to the humanities than it is today. If Ugo, as physician, deserves more extended and expert study, Lockwood's work will have performed the service of making the fact clear; will have provided not only the stimulus but much of the basic apparatus for such a study. It seems very unlikely that there remains anything important to be said concerning Ugo, the man and philosopher, in relation to his times.

The book, one regrets having to note, bears some of the familiar scars commonly incurred through prolonged, consecrated service to a single cause. It is a highly personalized—one might say "possessive"—book. The many rewards it offers may claim a certain amount of patience on the reader's part. The organization is such that time and dexterity are required for bringing into close association all of the pertinent material on a given point. The tendency to "worry" small points beyond their capacity for service frequently asserts itself. The frequent use of the first person singular, in conjunction with a rather dogmatic literary style, doubtless reflects successful classroom practice, but may disaffect the more mature scholar, whose need of artificial respiration is, supposedly, somewhat less acute.

No work of this magnitude and complexity, and that has been in process for twenty years, should be expected to emerge from the press innocent of the lapses from infallibility common to all men and all machines. Where translation from one language into another comes into the picture, questions of judgment or taste automatically arise, even when there is no question of error. The actual errors in this book appear to be relatively few and obvious; matters for debate, rather more frequent, of course. Not even combined, however, do they appreciably invalidate the research values of this fascinating contribution to medieval medical history.

Such profitable use of serendipity should happen more often.

W. B. McDaniel, 2d

Harley Williams. *Doctors Differ.* Five Studies in Contrast. John Elliotson, Hugh Owen Thomas, James Mackenzie, William Macewen, R. W. Philip. Springfield, Ill.: Charles C. Thomas, 1952. xvii + 239 pp. Ill. $5.50.

After perusal of this volume one knows just as little as before why doctors do differ and what these differences do mean. But one has read pleasantly written and more or less accurate biographies of the Mesmerian John Elliotson, the orthopedist Hugh Owen Thomas, the cardiologist James Mackenzie, the brain surgeon William Macewen, and the tuberculosis fighter Robert William Philip plus excursions on Thomas Wakley, Victor Horsley, William Osler, and Edward Livingston Trudeau. And that would be a pleasant and useful enough experience in itself. The real trouble starts when one probes the "background" remarks and the general theses of the author. It would take pages to correct detail errors: in 1882 there was no "Third Reich" in Germany, the man who claimed localisa-

tion of speech in the brain was called Bouillaud and not Bouillard etc., etc. Such basic assumptions of the author as that John Elliotson's failure "condemned the science of psychiatry to an early decline," that Hugh Owen Thomas created orthopedics, or Mackenzie a new clinical medicine are partly perhaps the consequences of the author's somewhat provincial outlook. Primarily they seem to stem from a mythological view of history which we would regard today rather as a prerogative of adolescents. Mr. Williams knows quite some medical history, but not enough. A clever style is not sufficient compensation for this.

ERWIN H. ACKERKNECHT

JOHN HILTON. *Rest and Pain.* Sixth Edition. Philadelphia: J. B. Lippincott Company, 1950. xxxiv + 503 pp. Ill. $10.00.

This classic work in surgery was originally published in 1863 and brought together "a course of lectures delivered at the Royal College of Surgeons of England in the years 1860, 1861, and 1862." The title of the 1863 publication was *On the Influence of Mechanical and Physiological Rest in the Treatment of Accidents and Surgical Diseases, and the Diagnostic Value of Pain.* Reconciliation with a back-strip and modern habits have shortened the title to *Rest and Pain.* The original title more clearly describes the aims of the work. Early postoperative ambulation is not a part of the discussion because elective surgery was only a dream until after Lister began to point the way with his paper of 1867.

The introduction is a concise story of the life of John Hilton, 1805-1878, written by H. J. B. Atkins, Director of the Department of Surgery, Guy's Hospital, London. John entered Guy's Hospital at the age of nineteen and after four years as a student, he was appointed Demonstrator in Anatomy in 1828. His interest lay in attempting to explain the reasons why anatomic structures are located and interrelated as we know them. He continually combined anatomy with physiology and pathology.

A good example of Hilton's approach to the teaching of anatomy and the correlation of form with function is to be found on page 289.

> There is a disposition on the part of anatomists to think and to teach that nerves are distributed with designed accuracy, but that there is very little design in the distribution of the arteries. I opened up this subject many years ago, when endeavoring to explain to the students of Guy's Hospital the purpose of the division of the subclavian artery into its numerous branches. I pointed out that the branches distributed from the subclavian trunk, apart from its continuation to the upper extremity, are distributed with one simple purpose, viz. to supply all the parts concerned directly and indirectly in the process of respiration—that is the simple object of the distribution of the subclavian artery. Thus:—
>
> The vertebral, besides supplying other parts, is distributed to that portion of the spinal marrow from which the phrenic, spinal accessory, and posterior thoracic—all important nerves of respiration—take origin.
>
> The internal mammary supplies the sternum, cartilages of the ribs, origin of the pectoralis major, phrenic nerve, diaphragm, and the upper half, or the respiratory portion, of the abdominal muscles.

The superior intercostal artery goes to the first and second ribs. Now, the first is the most important of all the ribs in the respiratory function, as it forms the fixed point for the action of the intercostal muscles in elevating the chest.

Of the branches of the thyroid axis, the inferior thyroid builds up the trachea, a tube essentially connected with respiration, and sends a branch upwards (ascending cervical) which accompanies and nourishes the phrenic nerve, and constitutes, in fact, an ascending comes nervi phrenici. The transverse cervical supplies the trapezius and the posterior border of the scapula, with the muscles attached to it, all of which may be considered accessory to respiration. The suprascapular supplies the clavicle and scapula, both of which are rendered respiratory by the attachment they give to accessory respiratory muscles.

Hilton summed up his studies in this way: "The same trunks of nerves, whose branches supply the groups of muscles moving a joint, furnish also a distribution of nerves to the skin over the insertions of the same muscles; and—what at this moment more especially merits our attention—the interior of the joint receives its nerves from the same source." We now call this statement "Hilton's Law."

In 1839, at the age of thirty-four, John Hilton was made a Fellow of the Royal Society, in recognition of his original observations on the anatomy of the laryngeal nerves. Four years later he was elected one of the Charter Fellows of the Royal College of Surgeons, and the following year he was made an Assistant Surgeon to Guy's Hospital. In 1849 he became full surgeon, on the sudden death of Aston Key. He was made Professor of Anatomy and Surgery to the Royal College of Surgeons in 1860, and in the course of his duties, delivered the eighteen lectures which were published under the title which we speak of as *Rest and Pain*. In 1871 he resigned his full duties and became a consulting surgeon, assumed the presidency of the Pathological Society, and was made Surgeon Extraordinary to Queen Victoria.

The present and sixth edition of *Rest and Pain* has been newly edited by E. W. Walls, Professor of Anatomy in the University of London at Middlesex Hospital Medical School and by Elliot E. Philipp, Honorary Demonstrator in Anatomy at Middlesex Hospital Medical School. The editors have deleted the notes compiled by W. H. A. Jacobson in the earlier editions, but have added and substituted their own modern interpretations of Hilton's thesis. Numerous explanations and modern ideas of Hilton's writings are published as Appendices after each chapter. The work is thus brought up to date in the light of present-day medical knowledge. Hilton's original illustrations, figures to the number of one hundred and five, have been retained and add, as in all his editions, an intriguing interest to the book. Finally, several pages of "Biographical Index" of persons mentioned in Hilton's text, are added at the end of the book, just before an adequate Index.

The editors have made us indebted to them for their fine work.

Fortunate, indeed, is the first year medical student who has Hilton's *Rest and Pain* strongly recommended for his perusal. I consider myself one of the fortunate ones. At the beginning of my course in anatomy, Professor Wesley Manning Baldwin of Albany Medical College, a scholar and an excellent teacher, advised us all to read this book. Much of it was then over our heads, but for those who learned to swim, the book disclosed depths of pleasure in anatomic knowledge

which the standard text book in anatomy did not give. In the same way, I should like to advise all medical students to read this book in their days and nights of anatomic study. All physicians will gain knowledge and understanding from it.

The publishers have given us a beautiful example of the art of modern printing, more pleasing to the eye than the earlier editions, and they are to be congratulated on making this classic work once more available.

EMERSON CROSBY KELLY

LEWIS J. MOORMAN. *Pioneer Doctor.* With a Foreword by Henry A. Christian. Norman, Okla.: University of Oklahoma Press, 1951. 252 pp. Ill. $3.75.

At the 1947 meeting of the American Association of the History of Medicine held in Cleveland, Dr. Moorman accepted an invitation to discuss pioneer practice in the American Southwest half a century ago. On that occasion he was revealed as sympathetic and flavorful, blessed with an appreciation of humor and endowed with the attributes of a beloved physician. Perhaps the theme had been dear to his heart and became crystallized at that time much to the delight of the members of the Association. *Pioneer Doctor* presents a more detailed account of his experiences in the leisurely tempo of a Southern gentleman. His story of conditions of practice is an authentic chapter in medical history of the American frontier.

Dr. Moorman was born on a Kentucky farm. Evidently the shining light of his youth was the revered country doctor whose wife had presided at the author's birth, pinch-hitting for the doctor engaged in like service elsewhere. It was the influence of this family doctor that fired him with the urge to study medicine. The daily round of a tobacco farm built better than he knew faculties of keen observation, resourcefulness, courage, discipline of body and mind. He knew and loved men and animals, was in tune with nature, saw at first hand the grave need for improved sanitation and medical care. The close association with a brother suffering from tuberculosis probably underlay his persistent interest in that disease until it became dominant in his medical career.

His medical education at Louisville brought him in contact with lusty pioneer students from the Southwest, especially Texas, and doubtless influenced his future settlement in Oklahoma, chance though it seemed. His medical studies were interrupted by financial reverses at home, which resulted in a job selling hardware and farm implements, and by a temporary license to practice medicine in Tennessee. With him there went the saddlebags of his revered old family physician. Graduation on borrowed money left him in debt, lonely, discouraged, footloose, with no future plan.

An advertised practice in Alabama proved useless. Investigation into an industrial location near Birmingham proved equally hopeless, but chance meeting with a fellow medical student changed the current of his plans. Oklahoma lands were being opened to settlers, and both turned west. Losing in the lottery for free land they shared an office for medical practice among the pioneer settlers. Through years of practice among the plains people of Oklahoma it remained home to him.

Unmarked trails, inclement weather, the hazards of storm and flood, Indians, these were his chosen field; illiterate poor in sod houses or shacks were his people, ignorance and insanitation his battleground. Compensation came not in money but in service to a very grateful humble folk. He saw the raw country blossom into productivity and wealth. He confronted the dust storms before that word was coined, or dust bowl Okies became a socio-economic problem.

Tuberculosis always claimed his attention. He began a sanatorium in a rented house of ten beds and one nurse, gradually developing a fine institution and wide influence in philanthropic efforts for prevention and cure of the disease which had blighted the life of his brother.

There came recognition and financial security patiently won in a Oklahoma City practice, leisure for reading and study, leisure for travel in search of more knowledge, leisure for inspiration at the shrines of masters in medicine. As editor of the Journal of the Oklahoma State Medical Association he found outlet for editorials based on a seasoned philosophy. As Dean of the University of Oklahoma Medical School he actively interested himself in the curriculum of medical schools, the levelling of differences between such schools, the end results of their training as shown in ability of graduates to meet necessary conditions of general practice among people, rather than fitness for laboratory research.

Study in Vienna pointed up the comment among other American students that the detached scientific study of cadavers overshadowed concern for the living patient. He recoiled from the attitude of considering patients as research material. Dr. Moorman had early become convinced that the patient must be studied as well as his disease, a human interest he found absent in Vienna. But he does pay tribute to individual European medical scientists of that period.

Through his book one sees his personal growth in keen observation, deep human sympathy, a philosophy of life that inspires the reader. For the lay reader he describes with infinite delicacy the intimate episodes of medical practice. His work among the tuberculous with their enforced periods led to his investigation into the compensations of calamity. He tells of the geniuses who found in the Land of Counterpane the inspiration for some of their greatest work. For those interested in pioneer life of western prairies, the book is replete with vivid description. Throughout there is reflected all the rugged qualities of the Good Physician.

HOWARD DITTRICK

E. Bastholm. *The History of Muscle Physiology*, from the Natural Philosophers to Albrecht von Haller. Copenhagen: Ejnar Munksgaard, 1950. 257 pp. Ill. D. Crs. 24. (Acta Historica Scientiarum Naturalium et Medicinalium, ed. Bibliotheca Universitatis Hauniensis, vol. 7.)

Within the chronological limits indicated by the title of his book, Dr. Bastholm presents the thought of individual physicians and scientists as far as it bears upon the structure and function of muscle. At the same time, he tries to interpret this thought against the background of the period to which the authors belong. He is at his best where he can analyze the contents of individual works, for he obviously went back to the sources. This aspect of the work will be of considerable help to other workers in the field. He is not equally successful in his interpretations. For instance, he arrives at the conclusion that down to the first century A. D. little interest in muscular physiology was evinced—with the exception of Erasistratus and a few others. As to Erasistratus, he goes too far when he writes that "by means of experimental tests on animals he had demonstrated that irritation of the dura affected the animal's motor functions." The authority for this statement, Galen (ed. Kühn V, 609), takes Erasistratus to task for having believed "that by reason of the wounding (trosis) of the meninx the animal becomes incapable of moving. For in oxen which had been wounded around the first vertebra he saw the animal immediately becoming incapable of movement when the meninx was divided." Nothing is said of "experimental test" or of "irritation." Galen at least must have understood Erasistratus to refer to a tear in the meninx, for he continues: "But this happens not because of the affection of the meninx, rather because the posterior ventricle [sc. of the brain] is laid bare." As to the general lack of interest in the functions of muscle before the first century—if confirmed, this would be remarkable in view of the Greeks' interest in athletics. Perhaps this scepticism will stimulate the author to investigate the problem on a broader basis, taking into account sculpture, vase paintings, and literature beside the strictly scientific works which have been preserved in such small number. Here as well as throughout the book, Dr. Bastholm would have benefited by a better acquaintance with modern historical research. For antiquity, for instance, Stromberg's *Theophrastea, Studien zur botanischen Begriffsbildung* (Göteborg, 1937) should have been consulted. And a knowledge of John Fulton's *Muscular Contraction and the Reflex Control of Movement* (Baltimore, 1926) might have saved considerable labor in many sections of the book.

In presenting his book in English (there is a brief resumé in Danish on pp. 240-47), Dr. Bastholm has deprived himself of the advantage of expressing himself in his mother tongue. This may explain an occasional lack of clarity. But Dr. Bastholm has to be thanked for a sacrifice whereby the book has become accessible to a wide circle of readers.

Owsei Temkin

JOHN F. FULTON. *Frontal Lobotomy and Affective Behavior.* A Neurophysiological Analysis. New York: W. W. Norton & Company, 1951. 159 pp. Ill. $3.00.

This monograph, small in extent but rich in information, is preceded by a brief historical chapter, throwing highlights on some important stages of the history of the physiology of the cerebral cortex, more specifically, the frontal lobes. The names of David Ferrier and Bianchi are linked with the fundamental distinction between those parts of the frontal cortex whose ablation entails impairment of voluntary motion and those areas whose removal interferes with intelligence. observational power, and memory. Privilege is given in this historical outline to the American school of "psycho-biology," fostered by Thorndike, Franz, Yerkes, Watson, Lashley, and Koehler. Most of the results reported in this book were obtained in the Yale physiological laboratory. The apparently conflicting principles of equipotentiality of cortical structure and regional functional differences are traced back to their historical sources. The author adheres to the principle of localization of elementary but also more complex behavior in limited areas of the cerebral cortex. Since, obviously, it was not intended to trace a more complete history of the frontal areas, their functional significance and the disturbances resulting from their destruction, the names of Meynert and Flechsig were not mentioned, though the latter must be credited with the first introduction of the now so powerful concept of *association* areas. Nor could the names of Burns, Oppenheim, and those others be listed who did pioneer work on disturbed *affective behavior,* resulting from frontal lesions.

Though the main part of the book is highly technical, it still is of greatest interest to the medical historian who does not want to neglect the history of medical *thought.* Never before was the impact of the anatomical conception of disease so strong as in contemporary psycho-surgery which is supplied through Fulton's book with its basic psycho-physiology. Such fundamenal experiences of the sick and of man at large as pain and emotion emerge as the *anonymous* elaboration of rather well-defined areas of the brain. The psychosurgeon, of course, can neither afford to approach these experiences as immediate manifestations of life nor to study them in their own setting. Since he trusts to bring relief through attacking the central *seats* of pain and emotion, he must search for those critical structures presumably underlying these experiences and those pathways conducting them. Though it is true that the modern method of discovering these structures and tracing the pathways (neuronography) is physiological, the stimulations and recordings implied in this method were from the beginning inserted into the structural plan of the brain; thus neuroanatomy still emerges as the true mistress of neurophysiology and psychosurgery.

WALTHER RIESE

THE BULLETIN RECENTLY RECEIVED *

Die anatomischen Schriften: Die Anatomie, Das Herz, Die Adern, in der hippokratischen Sammlung. Übersetzt und erläutert von Richard Kapferer in Zusammenarbeit mit Anton Fingerle und Franz Lommer. Stuttgart: Hippokrates-Verlag Marquardt & Cie., 1951. 55 pp. D. M. 3.50.

Herbert Conway and Richard B. Stark. *Plastic Surgery at the New York Hospital One Hundred Years Ago.* With Biographical Notes on Gurdon Buck. New York: Paul B. Hoeber, Inc., 1953. x + 110 pp. Ill. $5.00.

Carlos Martinez Duran. *Homenaje a Don Santiago Ramon y Cajal.* En el 1er Centenario de su Nacimiento, 1852-1952. Guatemala, C. A.: Imprenta Universitaria, 1952. 19 pp.

———. *La Medicina. Dialogo y Nuevo Encuentro con lo Humano* (Paréntesis especulativo frente a la técnica rutinaria). Guatemala, C. A.: Imprenta Universitaria, 1952. 21 pp.

Antoni van Leeuwenhoek. *The Collected Letters.* Edited, illustrated and annotated by a committee of Dutch Scientists. Vol. IV. Amsterdam: Swets and Zeitlinger Ltd., 1952. ix + 384 pp. Ill. $15.00.

Platons Timaios, oder Die Schrift über die Natur. Übersetzt und erläutert von Richard Kapferer in Zusammenarbeit mit Anton Fingerle. Stuttgart: Hippokrates-Verlag Marquardt & Cie., 1952. 112 pp. D. M. 4.75.

Johns L. Thornton. *John Abernethy,* a Biography. London: Simpkin Marshall Ltd., 1953. 184 pp. Ill. 25 shillings.

H. J. Zimmels. *Magicians, Theologians and Doctors.* Studies in Folk-medicine and Folk-lore as reflected in the Rabbinical Responsa (12th-19th Centuries). London: Edward Goldston & Son, Ltd., 1952. viii + 293 pp. 21 shillings.

* The *Bulletin* reserves freedom of decision as to the publications to be listed in this section.

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